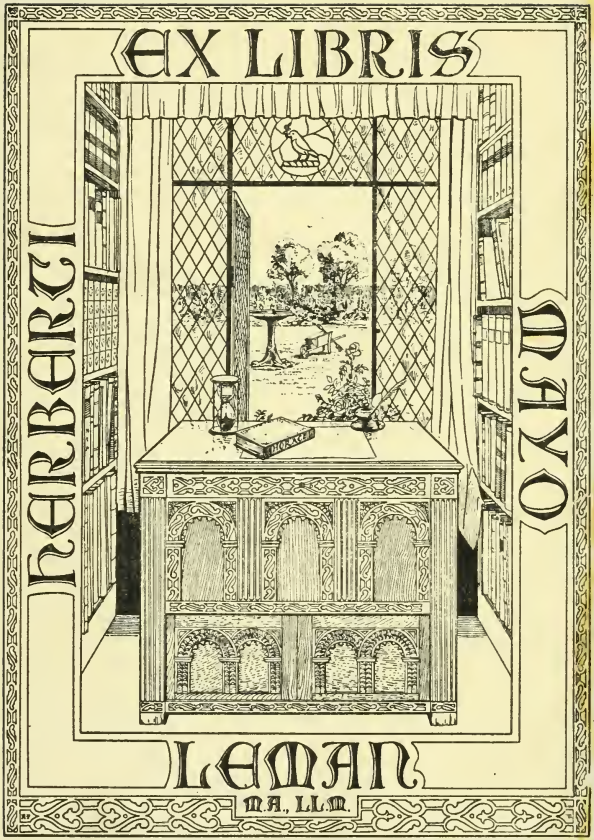
EX LIBRIS
HERBERT
MAYO
LEMAN
M.A., LL.M.

YOLTON
0389

SC ARCH/SPEC

Charles Mag

£120-

THE CONDUCT OF THE UNDERSTANDING.

BY

JOHN LOCKE, Esq.

TO WHICH IS ADDED, AN

ABSTRACT OF Mr. LOCKE's ESSAY ON HUMAN UNDERSTANDING.

CAMBRIDGE,

Printed by J. Archdeacon Printer to the UNIVERSITY;

For J. Nicholson, Bookseller, in Cambridge, and sold by T. & J. Merrill; J. C. & F. Rivington, S. Crowder, H. Gardner, and S. Hayes, in London; and W. Nicholson, Wisbeach.

MDCCLXXXI.

SUBSCRIBERS.

A.

LORD St. Asaph, of Trin. Coll.
Mr. Adnutt, of St. John's Coll.
Mr. Ainslie, B. A. of Trin. Coll.
Mr. W. Allanson, of ditto.
J. Alexander, B. A. of Pemb. Hall
Mr. R. Anstey, of St. John's Coll.
Mr. Atkinson, B. A. Fell. of Trin. Coll.
George Atwood, M. A. ditto.
Mr. John Audley, of Cambridge

B.

Mr. Baskett, Sen. B. A. of Trin. Coll.
Mr. Barlow, of ditto.
Mr. Barnard, Fell. of King's Coll.
Mr. S. Barrow, of ditto.
Mr. Bayliffe, of Trin. Coll.
Mr. Bayley, B. A. of Eman. Coll.
Mr. Beatniffe, of Sid. Suss. Coll.
Mr. Berry, B. A. of Trin. Coll.
Mr. T. Bowman, of ditto.
Mr. J. Bowtell, of Cambridge
Mr. Bradley, Trin. of Coll.
Rev. Mr. Bridges, M. A. Fell. of Queen's Coll.
Mr. Bridges, Jun. of ditto.
Hon. Mr. Brodrick, Fell. Com. of Clare Hall
Rev. Mr. Browne, of St. John's Coll.
Mr. J. Browne, B. A. of Trin. Coll.
Mr. Buck, of Magd. Coll.
Rev. Mr. Bulmer, B. A. of Jesus Coll.

C.

Right Rev. Edmund Lord Bishop of Carlisle
Mr. Carr, of Jesus Coll.
Mr. Cautley, M. A. Fell. of Trin. Coll. Senior Moderator in the University of Cambridge

SUBSCRIBERS.

Mr. Chapman, of Caius Coll.
Mr. Chafteney, of St. Peter's Coll.
Rev. Mr. Clarke, M. A. Fell. of Clare Hall
Rev. Mr. T. Cockſhut, Fell. of St. John's Coll.
Mr. Cook, of Queen's Coll.
Mr. Cooke, of St. John's Coll.
Mr. Cookſon, B. A. of ditto.
Mr. Robert Cooper, B. A. of Bene't Coll.
Mr. Coſtobadie, B. A. of Jeſ. Coll.
Rev. Mr. Tho. Cowper, M. A. Fell. of Cath. Hall
Mr. Cropley, of King's Coll.
Mr. Croſs, B. A. of St. Peter's Coll.
Rev. Mr. Cumming, M. A. of Trin. Coll.

D.

Mr. Dampier, Fell. of King's Coll.
Mr. Charles Davy, of Caius Coll.
Mr. Dickonſon, of St. Peter's Coll.
Mr. Dowſe, of Cath. Hall
Rev. Mr. E. Druery, M. A. Fell. of Caius Coll.

E.

Rev. Mr. Empſon, M. A. of Cath. Hall

F.

John Fagg, Eſq; B. A. of Clare Hall
Rev. Mr. Fariſh, M. A. Fell. of Magd. Coll.
Hon. Charles Feilding, Fell. Com. of Trin. Coll.
Rev. Mr. Fiſher, M. A. Fell. of Caius Coll.
Mr. Fletcher, of Magd. Coll.
Mr. Forby, B. A. of Caius Coll.

G.

Mr. Gale, of Trin. Coll.
Mr. Gambier, of Sid. Suſſ. Coll.
Mr. Gardner, in the Strand, 25 Copies
Mr. Gardner, of Trin. Coll.
Mr. John Garnett, B. A. ditto.
Mr. Geldart, of Trin. Coll.
Robert Glynn, M. D. Fell. of King's Coll. 6 Copies
Mr. Goodall, of ditto.

Rev.

Rev. Mr. Gretton, M. A. Fell. of Trin. Coll.
Mr. Gretton, Jun. of ditto.

H.

Mr. Haddelſey, of Eman. Coll.
Rev. Mr. Haggitt, B. A. of Trin. Coll.
Mr. Haggitt, B. A. of Pemb. Hall
Mr. Haigh, of Queen's Coll.
Mr. Hailſtone, of Trin. Coll.
Mr. Hallum, B. A. ditto.
Rev. Mr. Hammond, M. A. Fell. of Queen's Coll.
Mr. Hannington, B. A. of St. John's Coll.
Mr. Henry Harriſon, ditto.
Mr. E. Harriſon, B. A. of Trin. Coll.
Mr. R. Heſlop, of Sid. Suſſ. Coll.
Mr. John Hawkins, of Trin. Coll.
Mr. Charles Hayes, B. A. Fell. of King's Coll.
Mr. Holgate, B. A. of St. John's Coll.
Mr. Honiatt, ditto.

J.

Mr. Jackſon, of Eman. Coll.
Mr. Cayley Illingworth, B. A. of Pemb. Hall
Mr. Jones, Junr. of Trin. Coll.
Mr. Iredell, ditto.

K.

Mr. Kerrich, M. A. Fell. of Magd. Coll.
Mr. Kirby, B. A. of Caius Coll.
Mr. Knight, of Magd. Coll.

L.

Mr. Lamb, of Trin. Coll.
Mr. Leadley, of Magd. Coll.
Mr. Lewis, of Magd. Coll.
Mr. G. Lodge, of Linton, Cambridgeſhire
Mr. Lovering, B. A. of St. John's Coll.
Rev. Mr. Luxmoore, B. A. Fell. of King's Coll.
Mr. Luxmoore, of St. John's Coll.

M.

Mr. Mapletoft, of Eman. Coll.

Mr.

SUBSCRIBERS.

Mr. Marſham, of King's Coll.
Meſſrs. T. & J. Merrill, Bookſellers, Cambridge, 25 Copies.
Mr. Metcalfe, of Trin. Coll.
Mr. Michell, of King's Coll.
Mr. Middelton, of Sid. Suſſ. Coll.
Mr. Morgan, B. A. of Trin. Coll.
Mr. Mounſey, Junr. of Eman. Coll.

N.

Mr. N. Benj. Newton, of Jeſus Coll.
Mr. J. Norcroſs, of Pemb. Hall

O.

Mr. Orgill, of Caius Coll.
Rev. Mr. Ormerod, of Chriſt's Coll.

P.

Mr, Parke, of Pemb. Hall
Mr. C. J. Pemberton, Corp. Chriſt. Coll.
Mr. Podmore, of Trin. Coll.
Mr. Popple, M. A. Fell. of ditto.
Mr. Popple, Jun. of ditto.
Rev. Mr. Porter, M. A. Fell. of ditto.
Mr. Porter, B. A. of ditto.
Rev. Mr. Prettyman, M. A. Fell. of Pemb. Hall
Mr. Prieſt, B. A. of ditto.
Mr. Pyemont, of Trin. Coll.

R.

Mr. Raine, of Trin. Coll.
Mr. Peter Ramſdale, Oxford-ſtreet, London
Mr. Rendle, B A. of Sid. Suſſ. Coll.
Mr. Richards, B. A. of St. John's Coll.
Mr. Richards, of Magd. Coll.
Mr. Robinſon, of Trin. Hall
Mr. Tho. Robinſon, of St. John's Coll.
Hon. Mr. D. Ryder, of ditto.

S.

Mr. Saffery, B. A. of Caius Coll.

Mr.

Mr. Salmon, of Pemb. Hall
Mr. Salmon, of St. John's Coll.
Mr. Saunders, B. A. of Queen's Coll.
Mr. Shaw, B. A. of Trin. Coll.
Mr. Charles Simeon, of King's Coll.
Rev. Joſh. Smith, B. A. of St. John's Coll.
Mr. Sloley, B. A. of Caius Coll.
Mr. Smalpage, of Trin. Coll.
Mr. Sparke, of Pemb. Hall
Mr. Jacob Stafford, B. A. of Bene't Coll.
Mr. Steer, B. A. of St. John's Coll.
Mr. Strong, B. A. of Queen's Coll.
Mr. Thomas Sumpter, of King's Coll.

T.

Mr. Torre, of Trin. Coll.
Mr. Tyler, of Magd. Coll.

V.

Mr. Varenne, of Corp. Chriſt. Coll.

W.

Rev. Mr. Walford, M. A. Fell. of Caius Coll.
Mr. Walmſley, B. A. of St. John's Coll.
Mr. Walter, B. A. of Corp. Chriſt. Coll.
Edw. Waring, M. D. Profeſſor of Mathematics in the Univerſity of Cambridge
Mr. Warre, of Jeſus Coll.
Mr. Webſter, of Magd. Coll.
Mr. White, of Eman. Coll.
Mr. Whitehurſt, of Cath. Hall
Mr. Whitehurſt, of St. Peter's Coll.
—— Willymot, Eſq; Bedford Row, 2 Copies
Mr. Wood, B. A. of Magd. Coll.
Mr. Woodman, B. A. of Trin. Coll.
Mr. Wollaſton, of Sid. Suſſ. Coll.
Rev. Joſh. Wood, M. A. Fell. of Cath. Hall.
Mr. Richard Wood, of ditto.
Mr. T. W. Wrighte, of Queen's Coll.
Mr. Wyld, of Trin. Coll.

Y.

Rev. Denys Yonge, B. A. of Sid. Suſſ. Coll,

CON-

CONTENTS.

Introduction Page 1
Parts 6
Reasoning 8
Practice and Habits 25, 142
Ideas 31, 62
Principles 32
Mathematics 49
Religion 58
Prejudice 65
Indifferency 70, 173
Examine 72
Observation 80
Bias 84
Arguments 86
Haste 90, 133
Desultory 94
Smattering *ibid.*
Universality 95
Reading 101
Intermediate Principles 107
Partiality 110, 114
Theology 112
Anticipation 138
Resignation 141
Words 147
Wandering 152
Distinction 155
Similies 165
Assent 170
Ignorance with Indifferency 180
Question 185
Perseverance 186
Presumption 188
Despondency 190
Analogy 198
Association 199
Fallacies 207
Fundamental Verities 215
Bottoming 219
Transferring of Thoughts 221

THE CONDUCT OF THE UNDERSTANDING.

SECTION I.

INTRODUCTION.

THE laſt reſort a man has recourſe to in the conduct of himſelf, is his underſtanding; for though we diſtinguiſh the faculties of the mind, and give the ſupreme command to the will,

as to an agent; yet the truth is, the man which is the agent determines himſelf to this or that voluntary action, upon ſome precedent knowledge, or appearance of knowledge in the underſtanding. No man ever ſets himſelf about any thing, but upon ſome view or other which ſerves him for a reaſon for what he does: and whatſoever faculties he employs, the underſtanding with ſuch light as it has, well or ill informed, conſtantly leads; and by that light, true or falſe, all his operative powers are directed. The will itſelf, how abſolute and uncontroulable ſoever it may be thought, never fails in it's obedience to the dictates of the underſtanding. Temples have their ſacred images, and we ſee what influence they have always had over a great part

part of mankind. But in truth the ideas and images in men's minds are the invisible powers that constantly govern them, and to these they all universally pay a ready submission. It is therefore of the highest concernment, that great care should be taken of the understanding, to conduct it right in the search of knowledge, and in the judgments it makes.

The logic now in use has so long possessed the chair, as the only art taught in the schools for the direction of the mind in the study of the arts and sciences, that it would perhaps be thought an affectation of novelty to suspect, that rules that have served the learned world these two or three thousand years, and which without any com-

plaint of defects, the learned have reſted in, are not ſufficient to guide the underſtanding. And I ſhould not doubt but this attempt would be cenſured as vanity or preſumption, did not the great lord *Verulam's* authority juſtify it; who not ſervilely thinking learning could not be advanced beyond what it was, becauſe for many ages it had not been, did not reſt in the lazy approbation and applauſe of what was, becauſe it was; but enlarged his mind to what might be. In his preface to his *Novum Organum* concerning logic, he pronounces thus, *Qui ſummas dialecticæ partes tribuerunt, atque inde fidiſſima ſcientiis præſidia comparari putarunt, veriſſime et optime viderunt intellectum humanum, ſibi permiſſum, merito ſuſpectum eſſe debere. Verum infirmior omnino eſt malo medi-*

medicina; nec ipſa mali expers. Siquidem dialectica, quæ recepta eſt, licet ad civilia et artes, quæ in ſermone et opinione poſitæ ſunt, rectiſſime adhibeatur; naturæ tamen ſubtilitatem longo intervallo non attingit, et prænſando, quod non capit, ad errores potius ſtabiliendos et quaſi figendos, quam ad viam veritati aperiendam valuit.

"They," ſays he, "who attributed ſo much to logic, perceived very well and truly, that it was not ſafe to truſt the underſtanding to itſelf, without the guard of any rules. But the remedy reached not the evil; but became a part of it: for the logic which took place, though it might do well enough in civil affairs, and the arts which conſiſted in talk and opinion, yet comes very far ſhort of ſubtilty in the real performances of nature,

and catching at what it cannot reach, has ſerved to confirm and eſtabliſh errors, rather than to open a way to truth." And therefore a little after he ſays, "That it is abſolutely neceſſary that a better and perfecter uſe and employment of the mind and underſtanding ſhould be introduced." *Neceſſario requiritur ut melior et perfectior mentis et intellectus humani uſus et adoperatio introducatur.*

SECTION II.

PARTS.

There is, it is viſible, great variety in men's underſtandings, and their natural conſtitutions put ſo wide a difference between ſome men in this reſpect, that art and induſtry would never be able to maſter;

PARTS.

ter; and their very natures ſeem to want a foundation to raiſe on it that which other men eaſily attain unto. —— Amongſt men of equal education there is great inequality of parts. And the woods of *America*, as well as the ſchools of *Athens*, produce men of ſeveral abilities in the ſame kind. Though this be ſo, yet I imagine moſt men come very ſhort of what they might attain unto in their ſeveral degrees by a neglect of their underſtandings. A few rules of logic are thought ſufficient in this caſe for thoſe who pretend to the higheſt improvement; whereas I think there are a great many natural defects in the underſtanding capable of amendment, which are overlooked and wholly neglected. And it is eaſy to perceive that men are guilty of a

PARTS.

great many faults in the exercise and improvement of this faculty of the mind, which hinder them in their progress, and keep them in ignorance and error all their lives. Some of them I shall take notice of, and endeavour to point out proper remedies for in the following discourse.

SECTION III.

REASONING.

Besides the want of determined ideas, and of sagacity, and exercise in finding out, and laying in order intermediate ideas, there are three miscarriages that men are guilty of in reference to their reason, whereby this faculty is hindered in them from that service it might do and was designed for. And he that reflects upon the actions and discourses

courſes of mankind, will find their defects in this kind very frequent, and very obſervable.

1. The firſt is of thoſe who ſeldom reaſon at all, but do and think according to the example of others, whether parents, neighbours, miniſters, or who elſe they are pleaſed to make choice of to have an implicit faith in, for the ſaving of themſelves the pains and trouble of thinking and examining for themſelves.

2. The ſecond is of thoſe who put paſſion in the place of reaſon, and being reſolved that ſhall govern their actions and arguments, neither uſe their own, nor hearken to other people's reaſon, any farther than it ſuits their humour, intereſt, or

or party; and these one may observe commonly content themselves with words which have no distinct ideas to them, though, in other matters, that they come with an unbiassed indifferency to, they want not abilities to talk and hear reason, where they have no secret inclination that hinders them from being tractable to it.

3. The third sort is of those who readily and sincerely follow reason, but for want of having that which one may call *large, sound, round about sense*, have not a full view of all that relates to the question, and may be of moment to decide it. We are all short sighted, and very often see but one side of a matter; our views are not extended to all that has a connection with it.

From

REASONING.

From this defect I think no man is free. We see but in part, and we know but in part, and therefore it is no wonder we conclude not right from our partial views. This might instruct the proudest esteemer of his own parts, how useful it is to talk and consult with others, even such as come short of him in capacity, quickness and penetration: for since no one sees all, and we generally have different prospects of the same thing, according to our different, as I may say, positions to it, it is not incongruous to think, nor beneath any man to try, whether another may not have notions of things which have escaped him, and which his reason would make use of if they came into his mind. The faculty of reasoning seldom or never deceives those who trust to

it;

it; it's conſequences from what it builds on are evident and certain, but that which it oftenеſt, if not only, miſleads us in, is, that the principles from which we conclude the grounds upon which we bottom our reaſoning, are but a part, ſomething is left out which ſhould go into the reckoning to make it juſt and exact. Here we may imagine a vaſt and almoſt infinite advantage that angels and ſeparate ſpirits may have over us; who in their ſeveral degrees of elevation above us, may be endowed with more comprehenſive faculties, and ſome of them perhaps have perfect and exact views of all finite beings that come under their conſideration, can, as it were, in the twinkling of an eye, collect together all their ſcattered and almoſt boundleſs re-

relations. A mind ſo furniſhed, what reaſon has it to acquieſce in the certainty of it's concluſions!

In this we may ſee the reaſon why ſome men of ſtudy and thought, that reaſon right, and are lovers of truth, do make no great advances in their diſcoveries of it. Error and truth are uncertainly blended in their minds; their deciſions are lame and defective, and they are very often miſtaken in their judgments: the reaſon whereof is, they converſe but with one ſort of men, they read but one ſort of books, they will not come in the hearing but of one ſort of notions; the truth is, they canton out to themſelves a little *Goſhen* in the intellectual world, where light ſhines, and, as they conclude, day bleſſes them;

them; but the reſt of that vaſt *Expanſum* they give up to night and darkneſs, and ſo avoid coming near it. They have a pretty traffick with known correſpondents in ſome little creek, within that they confine themſelves, and are dexterous managers enough of the wares and products of that corner with which they content themſelves, but will not venture out into the great ocean of knowledge, to ſurvey the riches that nature hath ſtored other parts with, no leſs genuine, no leſs ſolid, no leſs uſeful, than what has fallen to their lot in the admired plenty and ſufficiency of their own little ſpot, which to them contains whatſoever is good in the univerſe. Thoſe who live thus mued up within their own contracted territories, and will not look abroad beyond the

the boundaries that chance, conceit, or lazineſs has ſet to their enquiries, but live ſeparate from the notions, diſcourſes and attainments of the reſt of mankind, may not amiſs be repreſented by the inhabitants of the *Marian* iſlands; who being ſeparated by a large tract of ſea from all communion with the habitable parts of the earth, thought themſelves the only people of the world. And though the ſtraitneſs of the conveniences of life amongſt them had never reached ſo far as to the uſe of fire, till the *Spaniards*, not many years ſince, in their voyages from *Acapulco* to *Manilia* brought it amongſt them; yet in the want and ignorance of almoſt all things, they looked upon themſelves even after that the *Spaniards* had brought amongſt

amongſt them the notice of variety of nations abounding in ſciences, arts and conveniences of life, of which they knew nothing, they looked upon themſelves, I ſay, as the happieſt and wiſeſt people of the univerſe. But for all that, no body, I think, will imagine them deep naturaliſts, or ſolid metaphyſicians; no body will deem the quickeſt ſighted amongſt them to have very enlarged views in ethics or politics, nor can any one allow the moſt capable amongſt them to be advanced ſo far in his underſtanding, as to have any other knowledge but of the few little things of his and the neighbouring iſlands within his commerce; but far enough from that comprehenſive enlargement of mind which adorns a ſoul devoted to truth, aſ-

REASONING.

aſſiſted with letters, and a free conſideration of the ſeveral views and ſentiments of thinking men of all ſides. Let not men therefore that would have a ſight of, what every one pretends to be deſirous to have a ſight of, truth in it's full extent, narrow and blind their own proſpect. Let not men think there is no truth but in the ſciences that they ſtudy, or the books that they read. To prejudge other men's notions before we have looked into them, is not to ſhew their darkneſs, but to put out our own eyes. *Try all things, hold faſt that which is good*, is a divine rule coming from the Father of light and truth; and it is hard to know what other way men can come at truth, to lay hold of it, if they do not dig and ſearch for it as

for gold and hid treaſure; but he that does ſo muſt have much earth and rubbiſh before he gets the pure metal; ſand, and pebbles, and droſs uſually lie blended with it, but the gold is nevertheleſs gold, and will enrich the man that employs his pains to ſeek and ſeparate it. Neither is there any danger he ſhould be deceived by the mixture. Every man carries about him a touchſtone, if he will make uſe of it, to diſtinguiſh ſubſtantial gold from ſuperficial glitterings, truth from appearances. And indeed the uſe and benefit of this touchſtone, which is natural reaſon, is ſpoiled and loſt only by aſſumed prejudices, overweening preſumption, and narrowing our minds. The want of exerciſing it in the full extent of things intelligible, is that which weakens

weakens and extinguiſhes this noble faculty in us. Trace it, and ſee whether it be not ſo. The day labourer in a country village has commonly but a ſmall pittance of knowledge, becauſe his ideas and notions have been confined to the narrow bounds of a poor converſation and employment: the low mechanic of a country town does ſomewhat outdo him; porters and coblers of great cities ſurpaſs them. A country gentleman, who leaving latin and learning in the univerſity, removes thence to his manſion houſe, and aſſociates with neighbours of the ſame ſtrain, who reliſh nothing but hunting and a bottle; with thoſe alone he ſpends his time, with thoſe alone he converſes, and can away with no company whoſe diſcourſe goes beyond what claret

and diſſoluteneſs inſpire. Such a patriot, formed in this happy way of improvement, cannot fail, as we ſee, to give notable deciſions upon the bench at quarter ſeſſions, and eminent proofs of his ſkill in politics, when the ſtrength of his purſe and party have advanced him to a more conſpicuous ſtation. To ſuch a one truly an ordinary coffee-houſe gleaner of the city is an errant ſtateſman, and as much ſuperior to, as a man converſant about *Whitehall* and the court, is to an ordinary ſhopkeeper. To carry this a little farther. Here is one muffled up in the zeal and infallibility of his own ſect, and will not touch a book, or enter into debate with a perſon that will queſtion any of thoſe things which to him are ſacred. Another ſurveys our differences in religion, with

with an equitable and fair indifference, and ſo finds probably that none of them are in every thing unexceptionable. Theſe diviſions and ſyſtems were made by men, and carry the mark of fallible on them; and in thoſe whom he differs from, and till he opened his eyes, had a general prejudice againſt, he meets with more to be ſaid for a great many things than before he was aware of, or could have imagined. Which of theſe two now is moſt likely to judge right in our religious controverſies, and to be moſt ſtored with truth, the mark all pretend to aim at? All theſe men that I have inſtanced in, thus unequally furniſhed with truth, and advanced in knowledge, I ſuppoſe of equal natural parts; all the odds between them has been the different ſcope

that has been given to their underſtandings to range in, for the gathering up of information, and furniſhing their heads with ideas, notions and obſervations, whereon to employ their minds, and form their underſtandings.

It will poſſibly be objected, who is ſufficient for all this? I anſwer, more than can be imagined. Every one knows what his proper buſineſs is, and what, according to the character he makes of himſelf, the world may juſtly expect of him; and to anſwer that, he will find he will have time and opportunity enough to furniſh himſelf, if he will not deprive himſelf by a narrowneſs of ſpirit, of thoſe helps that are at hand. I do not ſay to be a good geographer that a man ſhould viſit

viſit every mountain, river, promontory and creek upon the face of the earth, view the buildings, and ſurvey the land every where, as if he were going to make a purchaſe. But yet every one muſt allow, that he ſhall know a country better that makes often ſallies into it, and traverſes it up and down, than he that like a mill horſe goes ſtill round in the ſame track, or keeps within the narrow bounds of a field or two that delight him. He that will enquire out the beſt books in every ſcience, and inform himſelf of the moſt material authors of the ſeveral ſects of philoſophy and religion, will not find it an infinite work to acquaint himſelf with the ſentiments of mankind concerning the moſt weighty and comprehenſive ſubjects. Let him exerciſe the freedom of his rea-

ſon and underſtanding in ſuch a latitude as this, and his mind will be ſtrengthened, his capacity enlarged, his faculties improved: and the light which the remote and ſcattered parts of truth will give to one another, will ſo aſſiſt his judgment, that he will ſeldom be widely out, or miſs giving proof of a clear head, and a comprehenſive knowledge. At leaſt, this is the only way I know to give the underſtanding it's due improvement, to the full extent of it's capacity, and to diſtinguiſh the two moſt different things I know in the world, a logical chicaner from a man of reaſon. Only he that would thus give the mind it's flight, and ſend abroad his enquiries into all parts after truth, muſt be ſure to ſettle in his head determined ideas of all that he employs his thoughts

REASONING.

thoughts about, and never fail to judge himſelf, and judge unbiaſſedly of all that he receives from others, either in their writings or diſcourſes. Reverence or prejudice muſt not be ſuffered to give beauty or deformity to any of their opinions.

SECTION IV.

PRACTICE AND HABITS.

We are born with faculties and powers capable almoſt of any thing, ſuch at leaſt as would carry us farther than can eaſily be imagined: but it is only the exerciſe of thoſe powers which gives us ability and ſkill in any thing, and leads us towards perfection.

A middle aged ploughman will ſcarce ever be brought to the carriage

riage and language of a gentleman, though his body be as well proportioned, and his joints as ſupple, and his natural parts not any way inferior. The legs of a dancing maſter, and the fingers of a muſician fall as it were naturally without thought or pains into regular and admirable motions. Bid them change their parts, and they will in vain endeavour to produce like motions in the members not uſed to them, and it will require length of time and long practice to attain but ſome degrees of a like ability. What incredible and aſtoniſhing actions do we find rope dancers and tumblers bring their bodies to; not but that ſundry in almoſt all manual arts are as wonderful; but I name thoſe which the world takes notice of for ſuch, becauſe on that very account, they give

give money to ſee them. All theſe admired motions beyond the reach, and almoſt the conception of unpractiſed ſpectators, are nothing but the mere effects of uſe and induſtry in men, whoſe bodies have nothing peculiar in them from thoſe of the amazed lookers on.

As it is in the body, ſo it is in the mind; practice makes it what it is, and moſt even of thoſe excellences which are looked on as natural endowments, will be found when examined into more narrowly, to be the product of exerciſe, and to be raiſed to that pitch only by repeated actions. Some men are remarked for pleaſantneſs in raillery; others for apologues and appoſite diverting ſtories. This is apt to be taken for the effect of pure nature, and

PRACTICE AND HABITS.

and that the rather, because it is not got by rules, and those who excel in either of them, never purposely set themselves to the study of it as an art to be learnt. But yet it is true, that at first some lucky hit which took with some body, and gained him commendation, encouraged him to try again, inclined his thoughts and endeavours that way, till at last he insensibly got a facility in it without perceiving how, and that is attributed wholly to nature, which was much more the effect of use and practice. I do not deny that natural disposition may often give the first rise to it; but that never carries a man far without use and exercise, and it is practice alone that brings the powers of the mind as well as those of the body to their perfection. Many a good poetic vein

vein is buried under a trade, and never produces any thing for want of improvement. We ſee the ways of diſcourſe and reaſoning are very different, even concerning the ſame matter, at court and in the univerſity. And he that will go but from *Weſtminſter-hall* to the *Exchange*, will find a different genius and turn in their ways of talking, and yet one cannot think that all whoſe lot fell in the city were born with different parts from thoſe who were bred at the univerſity or inns of court.

To what purpoſe all this, but to ſhew that the difference ſo obſervable in men's underſtandings and parts, does not ariſe ſo much from their natural faculties as acquired habits. He would be laughed at that ſhould go about to make a fine dancer

cer out of a country hedger, at paſt fifty. And he will not have much better ſucceſs, who ſhall endeavour at that age to make a man reaſon well, or ſpeak handſomely who has never been uſed to it, though you ſhould lay before him a collection of all the beſt precepts of logic or oratory. No body is made any thing by hearing of rules, or laying them up in his memory; practice muſt ſettle the habit of doing without reflecting on the rule, and you may as well hope to make a good painter or muſician extempore by a lecture and inſtruction in the arts of muſic and painting, as a coherent thinker, or ſtrict reaſoner by a ſet of rules, ſhewing him wherein right reaſoning conſiſts.

This being ſo that defects and weak-

PRACTICE AND HABITS.

weakneſs in men's underſtandings, as well as other faculties, come from want of a right uſe of their own minds, I am apt to think the fault is generally miſlaid upon nature, and there is often a complaint of want of parts, when the fault lies in want of a due improvement of them. We ſee men frequently dextrous and ſharp enough in making a bargain, who, if you reaſon with them about matters of religion, appear perfectly ſtupid.

SECTION V.

IDEAS.

I will not here, in what relates to the right conduct and improvement of the underſtanding, repeat again the getting clear and determined ideas, and the employing our thoughts

thoughts rather about them, than about ſounds put for them; nor of ſettling the ſignification of words which we uſe with ourſelves in the ſearch of truth, or with others in diſcourſing about it. Thoſe hinderances of our underſtandings in the purſuit of knowledge, I have ſufficiently enlarged upon in another place; ſo that nothing more needs here to be ſaid of thoſe matters.

SECTION VI.

PRINCIPLES.

There is another fault that ſtops or miſleads men in their knowledge, which I have alſo ſpoken ſomething of, but yet is neceſſary to mention here again, that we may examine it to the bottom, and ſee the root it ſprings from, and that is, a cuſtom of

PRINCIPLES.

taking up with principles that are not ſelfevident, and very often not ſo much as true. It is not unuſual to ſee men reſt their opinions upon foundations that have no more certainty and ſolidity than the propoſitions built on them, and embraced for their ſake. Such foundations are theſe and the like, viz. the founders or leaders of my party are good men, and therefore their tenets are true; it is the opinion of a ſect that is erroneous, therefore it is falſe; it hath been long received in the world, therefore it is true; or it is new, and therefore falſe.

Theſe, and many the like, which are by no means the meaſures of truths and falſhood, the generality of men make the ſtandards by which they accuſtom their underſtanding to

judge. And thus they falling into a habit of determining truth and falſhood by ſuch wrong meaſures, it is no wonder they ſhould embrace error for certainty, and be very poſitive in things they have no ground for.

There is not any who pretends to the leaſt reaſon, but when any of theſe his falſe maxims are brought to the teſt, muſt acknowledge them to be fallible, and ſuch as he will not allow in thoſe that differ from him; and yet after he is convinced of this, you ſhall ſee him go on in the uſe of them, and the very next occaſion that offers argue again upon the ſame grounds. Would one not be ready to think that men are willing to impoſe upon themſelves, and miſlead their own underſtandings,

ſtandings, who conduct them by ſuch wrong meaſures, even after they ſee they cannot be relied on? But yet they will not appear ſo blameable as may be thought at firſt ſight; for I think there are a great many that argue thus in earneſt, and do it not to impoſe on themſelves or others. They are perſuaded of what they ſay, and think there is weight in it, though in a like caſe they have been convinced there is none; but men would be intolerable to themſelves, and contemptible to others, if they ſhould embrace opinions without any ground, and hold what they could give no manner of reaſon for. True or falſe, ſolid or ſandy, the mind muſt have ſome foundation to reſt itſelf upon, and as I have remarked in another place, it no ſooner entertains any propoſition,

but it preſently haſtens to ſome hypotheſis to bottom it on, till then it is unquiet and unſettled. So much do our own very tempers diſpoſe us to a right uſe of our underſtandings if we would follow as we ſhould the inclinations of our nature.

In ſome matters of concernment, eſpecially thoſe of religion, men are not permitted to be always wavering and uncertain, they muſt embrace and profeſs ſome tenets or other; and it would be a ſhame, nay, a contradiction too heavy for any one's mind to lie conſtantly under, for him to pretend ſeriouſly to be perſuaded of the truth of any religion, and yet not to be able to give any reaſon of his belief, or to ſay any thing for his preference of

of this to any other opinion; and therefore they muſt make uſe of ſome principles or other, and thoſe can be no other than ſuch as they have and can manage; and to ſay they are not in earneſt perſuaded by them, and do not reſt upon thoſe they make uſe of, is contrary to experience, and to allege that they are not miſled when we complain they are.

If this be ſo, it will be urged, why then do they not rather make uſe of ſure and unqueſtionable principles, than reſt on ſuch grounds as may deceive them, and will, as is viſible, ſerve to ſupport error as well as truth?

To this I anſwer, the reaſon why they do not make uſe of better and

ſurer principles, is becauſe they cannot: but this inability proceeds not from want of natural parts (for thoſe few whoſe caſe that is are to be excuſed) but for want of uſe and exerciſe. Few men are from their youth accuſtomed to ſtrict reaſoning, and to trace the dependance of any truth in a long train of conſequences to it's remote principles, and to obſerve it's connection; and he that by frequent practice has not been uſed to this employment of his underſtanding, it is no more wonder that he ſhould not, when he is grown into years, be able to bring his mind to it, than that he ſhould not be on a ſudden able to grave or deſign, dance on the ropes, or write a good hand, who has never practiſed either of them.

Nay,

PRINCIPLES.

Nay, the moſt of men are ſo wholly ſtrangers to this, that they do not ſo much as perceive their want of it, they diſpatch the ordinary buſineſs of their callings by rote, as we ſay, as they have learnt it, and if at any time they miſs ſucceſs, they impute it to any thing rather than want of thought or ſkill, that they conclude (becauſe they know no better) they have in perfection; or if there be any ſubject that intereſt or fancy has recommended to their thoughts, their reaſoning about it is ſtill after their own faſhion, be it better or worſe, it ſerves their turns, and is the beſt they are acquainted with; and therefore when they are led by it into miſtakes, and their buſineſs ſucceeds accordingly, they impute it to any croſs accident, or default of others, rather

than to their own want of underſtanding; that is, what no body diſcovers or complains of in himſelf. Whatſoever made his buſineſs to miſcarry, it was not want of right thought and judgment in himſelf: he ſees no ſuch defect in himſelf, but is ſatisfied that he carries on his deſigns well enough by his own reaſoning, or at leaſt ſhould have done, had it not been for unlucky traverſes not in his power. Thus being content with this ſhort and very imperfect uſe of his underſtanding, he never troubles himſelf to ſeek out methods of improving his mind, and lives all his life without any notion of cloſe reaſoning, in a continued connection of a long train of conſequences from ſure foundations, ſuch as is requiſite for the making out, and clearing moſt of

of the ſpeculative truths moſt men own to believe, and are moſt concerned in. Not to mention here what I ſhall have occaſion to inſiſt on by and by more fully, viz. that in many caſes it is not one ſeries of conſequences will ſerve the turn, but many different and oppoſite deductions muſt be examined and laid together, before a man can come to make a right judgment of the point in queſtion. What then can be expected from men that neither ſee the want of any ſuch kind of reaſoning as this; nor if they do, know they how to ſet about it, or could perform it? You may as well ſet a countryman who ſcarce knows the figures, and never caſt up a ſum of three particulars, to ſtate a merchant's long account, and find the true balance of it.

What

PRINCIPLES.

What then ſhould be done in the caſe? I anſwer, we ſhould always remember what I ſaid above, that the faculties of our ſouls are improved and made uſeful to us, juſt after the ſame manner as our bodies are. Would you have a man write or paint, dance or fence well, or perform any other manual operation dexterouſly and with eaſe, let him have ever ſo much vigour and activity, ſuppleneſs and addreſs naturally, yet no body expects this from him unleſs he has been uſed to it, and has employed time and pains in faſhioning and forming his hand or outward parts to theſe motions. Juſt ſo it is in the mind, would you have a man reaſon well, you muſt uſe him to it betimes, exerciſe his mind in obſerving the connection of ideas, and following them

them in train. Nothing does this better than mathematics, which therefore I think ſhould be taught all thoſe who have the time and opportunity, not ſo much to make them mathematicians, as to make them reaſonable creatures; for though we all call ourſelves ſo, becauſe we are born to it if we pleaſe, yet we may truly ſay nature gives us but the ſeeds of it; we are born to be, if we pleaſe, rational creatures, but it is uſe and exerciſe only that makes us ſo, and we are indeed ſo no farther than induſtry and application has carried us. And therefore in ways of reaſoning which men have not been uſed to, he that will obſerve the concluſions they take up, muſt be ſatisfied they are not all rational.

This

PRINCIPLES.

This has been the leſs taken notice of, becauſe every one in his private affairs, uſes ſome ſort of reaſoning or other, enough to denominate him reaſonable. But the miſtake is, that he that is found reaſonable in one thing is concluded to be ſo in all, and to think or ſay otherwiſe, is thought ſo unjuſt an affront, and ſo ſenſeleſs a cenſure, that no body ventures to do it. It looks like the degradation of a man below the dignity of his nature. It is true, that he that reaſons well in any one thing, has a mind naturally capable of reaſoning well in others, and to the ſame degree of ſtrength and clearneſs, and poſſibly much greater, had his underſtanding been ſo employed. But it is as true, that he who can reaſon well to day about one ſort of matters, cannot at all reaſon to

day

day about others, though perhaps a year hence he may. But wherever a man's rational faculty fails him, and will not ſerve him to reaſon, there we cannot ſay he is rational, how capable ſoever he may be by time and exerciſe to become ſo.

Try in men of low and mean education, who have never elevated their thoughts above the ſpade and the plough, nor looked beyond the ordinary drudgery of a day labourer. Take the thoughts of ſuch an one, uſed for many years to one track, out of that narrow compaſs he has been all his life confined to, you will find him no more capable of reaſoning than almoſt a perfect natural. Some one or two rules on which their concluſions immediately depend, you will find in moſt men have

have governed all their thoughts; theſe, true or falſe, have been the maxims they have been guided by: take theſe from them, and they are perfectly at a loſs, their compaſs and pole ſtar then are gone, and their underſtanding is perfectly at a non-plus, and therefore they either immediately return to their old maxims again as the foundations of all truth to them, notwithſtanding all that can be ſaid to ſhew their weakneſs; or if they give them up to their reaſons, they with them give up all truth and further enquiry, and think there is no ſuch thing as certainty. For if you would enlarge their thoughts, and ſettle them upon more remote and ſurer principles, they either cannot eaſily apprehend them, or if they can, know not what uſe to make of them; for long

long deductions from remote prinples, is what they have not been uſed to, and cannot manage.

What then, can grown men never be improved or enlarged in their underſtandings? I ſay not ſo, but this I think I may ſay, that it will not be done without induſtry and application, which will require more time and pains than grown men, ſettled in their courſe of life, will allow to it, and therefore very ſeldom is done. And this very capacity of attaining it by uſe and exerciſe only, brings us back to that which I laid down before, that it is only practice that improves our minds as well as bodies, and we muſt expect nothing from our underſtandings any farther than they are perfected by habits.

The

PRINCIPLES.

The *Americans* are not all born with worſe underſtandings than the *Europeans*, though we ſee none of them have ſuch reaches in the arts and ſciences. And among the children of a poor countryman, the lucky chance of education and getting into the world, gives one infinitely the ſuperiority in parts over the reſt, who continuing at home, had continued alſo juſt of the ſame ſize with his brethren.

He that has to do with young ſcholars, eſpecially in mathematics, may perceive how their minds open by degrees, and how it is exerciſe alone that opens them. Sometimes they will ſtick a long time at a part of a demonſtration, not for want of will and application, but really for want of perceiving the connection

PRINCIPLES.

of two ideas; that, to one whoſe underſtanding is more exerciſed, is as viſible as any thing can be. The ſame would be with a grown man beginning to ſtudy mathematics, the underſtanding for want of uſe, often ſticks in very plain way, and he himſelf that is ſo puzzled, when he comes to ſee the connection, wonders what it was he ſtuck at in a caſe ſo plain.

SECTION VII.

MATHEMATICS.

I have mentioned mathematics as a way to ſettle in the mind an habit of reaſoning cloſely and in train; not that I think it neceſſary that all men ſhould be deep mathematicians, but that having got the way of reaſoning, which that ſtudy ne-

ceſſarily brings the mind to, they might be able to transfer it to other parts of knowledge as they ſhall have occaſion. For in all ſorts of reaſoning, every ſingle argument ſhould be managed as a mathematical demonſtration, the connection and dependance of ideas ſhould be followed till the mind is brought to the ſource on which it bottoms, and obſerves the coherence all along, though in proofs of probability, one ſuch train is not enough to ſettle the judgment as in demonſtrative knowledge.

Where a truth is made out by one demonſtration, there needs no farther enquiry, but in probabilities where there wants demonſtration to eſtabliſh the truth beyond doubt, there it is not enough to trace one argu-

argument to it's ſource, and obſerve it's ſtrength and weakneſs, but all the arguments, after having been ſo examined on both ſides, muſt be laid in balance one againſt another, and upon the whole the underſtanding determine it's aſſent.

This is a way of reaſoning the underſtanding ſhould be accuſtomed to, which is ſo different from what the illiterate are uſed to, that even learned men oftentimes ſeem to have very little or no notion of it. Nor is it to be wondered, ſince the way of diſputing in the ſchools leads them quite away from it, by inſiſting on one topical argument, by the ſucceſs of which the truth or falſhood of the queſtion is to be determined, and victory adjudged to the opponent or defendant; which

is all one as if one ſhould balance an account by one ſum charged and diſcharged, when there are an hundred others to be taken into conſideration.

This therefore it would be well if men's minds were accuſtomed to, and that early, that they might not erect their opinions upon one ſingle view, when ſo many other are requiſite to make up the account, and muſt come into the reckoning before a man can form a right judgment. This would enlarge their minds, and give a due freedom to their underſtandings, that they might not be led into error by preſumption, lazineſs or precipitancy; for I think no body can approve ſuch a conduct of the underſtanding, as ſhould miſlead it from truth, though

though it be ever ſo much in faſhion to make uſe of it.

To this perhaps it will be objected, that to manage the underſtanding, as I propoſe, would require every man to be a ſcholar, and to be furniſhed with all the materials of knowledge, and exerciſed in all the ways of reaſoning. To which I anſwer, that it is a ſhame for thoſe that have time, and the means to attain knowledge, to want any helps or aſſiſtance for the improvement of their underſtandings, that are to be got, and to ſuch I would be thought here chiefly to ſpeak. Thoſe methinks, who by the induſtry and parts of their anceſtors, have been ſet free from a conſtant drudgery to their backs and their bellies, ſhould beſtow ſome of their ſpare

time on their heads, and open their minds by ſome trials and eſſays in all the ſorts and matters of reaſoning. I have before mentioned mathematics, wherein algebra gives new helps and views to the underſtanding. If I propoſe theſe, it is not, as I ſaid, to make every man a thorough mathematician, or a deep algebraiſt; but yet I think the ſtudy of them is of infinite uſe even to grown men; firſt by experimentally convincing them, that to make any one reaſon well, it is not enough to have parts wherewith he is ſatisfied, and that ſerve him well enough in his ordinary courſe. A man in thoſe ſtudies will ſee, that however good he may think his underſtanding, yet in many things, and thoſe very viſible, it may fail him. This would take off that preſumption that moſt

men

men have of themſelves in this part; and they would not be ſo apt to think their minds wanted no helps to enlarge them, that there could be nothing added to the acuteneſs and penetration of their underſtandings.

Secondly, the ſtudy of mathematics would ſhew them the neceſſity there is in reaſoning, to ſeparate all the diſtinct ideas, and ſee the habitudes that all thoſe concerned in the preſent enquiry have to one another, and to lay by thoſe which relate not to the propoſition in hand, and wholly to leave them out of the reckoning. This is that, which in other ſubjects beſides quantity, is what is abſolutely requiſite to juſt reaſoning, though in them it is not ſo eaſily obſerved, nor ſo carefully practiſed. In thoſe

parts of knowledge where it is thought demonſtration has nothing to do, men reaſon as it were in the lump; and if upon a ſummary and confuſed view, or upon a partial conſideration, they can raiſe the appearance of a probability, they uſually reſt content; eſpecially if it be in a diſpute where every little ſtraw is laid hold on, and every thing that can but be drawn in any way to give colour to the argument, is advanced with oſtentation. But that mind is not in a poſture to find the truth, that does not diſtinctly take all the parts aſunder, and omitting what is not at all to the point, draw a concluſion from the reſult of all the particulars which any way influence it. There is another no leſs uſeful habit to be got by an application to mathematical

MATHEMATICS.

tical demonſtrations, and that is, of uſing the mind to a long train of conſequences; but having mentioned that already, I ſhall not again here repeat it.

As to men whoſe fortunes and time is narrower, what may ſuffice them is not of that vaſt extent as may be imagined, and ſo comes not within the objection.

No body is under an obligation to know every thing. Knowledge and ſcience in general, is the buſineſs only of thoſe who are at eaſe and leiſure. Thoſe who have particular callings ought to underſtand them; and it is no unreaſonable propoſal, nor impoſſible to be compaſſed, that they ſhould think and reaſon right about what is their daily

daily employment. This one cannot think them incapable of, without levelling them with the brutes, and charging them with a ſtupidity below the rank of rational creatures.

SECTION VIII.

RELIGION.

Beſides his particular calling for the ſupport of this life, every one has a concern in a future life, which he is bound to look after. This engages his thoughts in religion; and here it mightily lies upon him to underſtand and reaſon right. Men therefore cannot be excuſed from underſtanding the words, and framing the general notions relating to religion, right. The one day of ſeven, beſides other days of reſt, allows in the chriſtian world time enough for

this (had they no other idle hours) if they would but make uſe of theſe vacancies from their daily labour, and apply themſelves to an improvement of knowledge, with as much diligence as they often do to a great many other things that are uſeleſs, and had but thoſe that would enter them according to their ſeveral capacities in a right way to this knowledge. The original make of their minds is like that of other men, and they would be found not to want underſtanding fit to receive the knowledge of religion, if they were a little encouraged and helped in it as they ſhould be. For there are inſtances of very mean people, who have raiſed their minds to a great ſenſe and underſtanding of religion. And though theſe have not been ſo frequent as could be wiſhed, yet

yet they are enough to clear that condition of life from a neceſſity of groſs ignorance, and to ſhew that more might be brought to be rational creatures and chriſtians (for they can hardly be thought really to be ſo, who wearing the name, know not ſo much as the very principles of that religion) if due care were taken of them. For, if I miſtake not, the peaſantry lately in *France* (a rank of people under a much heavier preſſure of want and poverty than the day labourers in *England*) of the reformed religion, underſtood it much better, and could ſay more for it than thoſe of a higher condition among us.

But if it ſhall be concluded that the meaner ſort of people muſt give themſelves up to a brutiſh ſtupidity in

in the things of their neareſt concernment, which I ſee no reaſon for, this excuſes not thoſe of a freer fortune and education, if they neglect their underſtandings, and take no care to employ them as they ought, and ſet them right in the knowledge of thoſe things, for which principally they were given them. At leaſt thoſe whoſe plentiful fortunes allow them the opportunities and helps of improvements, are not ſo few, but that it might be hoped great advancements might be made in knowledge of all kinds, eſpecially in that of the greateſt concern and largeſt views, if men would make a right uſe of their faculties, and ſtudy their own underſtandings.

SECTION IX.

IDEAS.

Outward corporeal objects that conſtantly importune our ſenſes, and captivate our appetites, fail not to fill our heads with lively and laſting ideas of that kind. Here the mind needs not be ſet upon getting greater ſtore; they offer themſelves faſt enough, and are uſually entertained in ſuch plenty, and lodged ſo carefully, that the mind wants room or attention for others that it has more uſe and need of. To fit the underſtanding therefore for ſuch reaſoning as I have been above ſpeaking of, care ſhould be taken to fill it with moral and more abſtract ideas; for theſe not offering themſelves to the ſenſes, but being to be framed to the underſtanding, people

ple are generally ſo neglectful of a faculty they are apt to think wants nothing, that I fear moſt men's minds are more unfurniſhed with ſuch ideas than is imagined. They often uſe the words, and how can they be ſuſpected to want the ideas? What I have ſaid in the third book of my eſſay, will excuſe me from any other anſwer to this queſtion. But to convince people of what moment it is to their underſtandings to be furniſhed with ſuch abſtract ideas ſteady and ſettled in them, give me leave to aſk how any one ſhall be able to know, whether he be obliged to be juſt, if he has not eſtabliſhed ideas in his mind, of obligation and of juſtice, ſince knowledge conſiſts in nothing but the perceived agreement or diſagreement of thoſe ideas; and ſo of all others, the like

like which concern our lives and manners. And if men do find a difficulty to ſee the agreement or diſagreement of two angles which lie before their eyes, unalterable in a diagram, how utterly impoſſible will it be to perceive in it ideas that have no other ſenſible objects to repreſent them to the mind, but ſounds, with which they have no manner of conformity, and therefore had need to be clearly ſettled in the mind themſelves, if we would make any clear judgment about them. This therefore is one of the firſt things the mind ſhould be employed about in the right conduct of the underſtanding, without which it is impoſſible it ſhould be capable of reaſoning right about thoſe matters. But in theſe, and all other ideas, care muſt be taken that they harbour

bour no inconſiſtences, and that they have a real exiſtence where real exiſtence is ſuppoſed, and are not mere chimeras with a ſuppoſed exiſtence.

SECTION X.

PREJUDICE.

Every one is forward to complain of the prejudices that miſlead other men or parties, as if he were free, and had none of his own. This being objected on all ſides, it is agreed, that it is a fault and an hindrance to knowledge. What now is the cure? No other but this, that every man ſhould let alone others' prejudices and examine his own. No body is convinced of his by the accuſation of another, he recriminates by the ſame rule, and is

clear. The only way to remove this great cauſe of ignorance and error out of the world, is, for every one impartially to examine himſelf. If others will not deal fairly with their own minds; does that make my errors truths, or ought it to make me in love with them, and willing to impoſe on myſelf? If others love cataracts on their eyes, ſhould that hinder me from couching of mine as ſoon as I could? Every one declares againſt blindneſs, and yet who almoſt is not fond of that which dims his ſight, and keeps the clear light out of his mind, which ſhould lead him into truth and knowledge? Falſe or doubtful poſitions, relied upon as unqueſtionable maxims, keep thoſe in the dark from truth, who build on them. Such are uſually the

prejudices imbibed from education, party, reverence, faſhion, intereſt, &c. This is the mote which every one ſees in his brother's eye, but never regards the beam in his own. For who is there almoſt that is ever brought fairly to examine his own principles, and ſee whether they are ſuch as will bear the trial? but yet this ſhould be one of the firſt things every one ſhould ſet about, and be ſcrupulous in, who would rightly conduct his underſtanding in the ſearch of truth and knowledge.

To thoſe who are willing to get rid of this great hindrance of knowledge, (for to ſuch only I write) to thoſe who would ſhake off this great and dangerous impoſtor prejudice, who dreſſes up falſhood in the likeneſs of truth, and ſo dexterouſly

hoodwinks men's minds, as to keep them in the dark, with a belief that they are more in the light than any that do not ſee with their eyes, I ſhall offer this one mark whereby prejudice may be known. He that is ſtrongly of any opinion, muſt ſuppoſe (unleſs he be ſelfcondemned) that his perſuaſion is built upon good grounds; and that his aſſent is no greater than what the evidence of the truth he holds forces him to; and that they are arguments, and not inclination or fancy that make him ſo confident and poſitive in his tenets. Now if after all his profeſſion, he cannot bear any oppoſition to his opinion, if he cannot ſo much as give a patient hearing, much leſs examine and weigh the arguments on the other ſide, does he not plainly confeſs it is prejudice

dice governs him? And it is not the evidence of truth, but ſome lazy anticipation, ſome beloved preſumption that he deſires to reſt undiſturbed in. For if what he holds be as he gives out, well fenced with evidence, and he ſees it to be true, what need he fear to put it to the proof? If his opinion be ſettled upon a firm foundation, if the arguments that ſupport it, and have obtained his aſſent be clear, good and convincing, why ſhould he be ſhy to have it tried whether they be proof or not? He whoſe aſſent goes beyond his evidence, owes this exceſs of his adherence only to prejudice, and does, in effect, own it, when he refuſes to hear what is offered againſt it; declaring thereby, that it is not evidence he ſeeks, but the quiet enjoyment of the opinion

PREJUDICE.

he is fond of, with a forward condemnation of all that may ſtand in oppoſition to it, unheard and unexamined; which, what is it but prejudice? *Qui æquum ſtatuerit parte inauditâ alterâ, etiam ſi æquum ſtatuerit, haud æquus fuerit.* He that would acquit himſelf in this caſe as a lover of truth, not giving way to any preoccupation, or bias that may miſlead him, muſt do two things that are not very common, nor very eaſy.

SECTION XI.

INDIFFERENCY.

Firſt, he muſt not be in love with any opinion, or wiſh it to be true, till he knows it to be ſo, and then he will not need to wiſh it: for nothing that is falſe can deſerve our

INDIFFERENCY.

our good wiſhes, nor a deſire that it ſhould have the place and force of truth; and yet nothing is more frequent than this. Men are fond of certain tenets upon no other evidence but reſpect and cuſtom, and think they muſt maintain them, or all is gone, though they have never examined the ground they ſtand on, nor have ever made them out to themſelves, or can make them out to others. We ſhould contend earneſtly for the truth, but we ſhould firſt be ſure that it is truth, or elſe we fight againſt God, who is the God of truth, and do the work of the devil, who is the father and propagator of lies; and our zeal, though ever ſo warm, will not excuſe us; for this is plainly prejudice.

SECTION XII.

EXAMINE.

Secondly, He muſt do that which he will find himſelf very averſe to, as judging the thing unneceſſary, or himſelf incapable of doing it. He muſt try whether his principles be certainly true or not, and how far he may ſafely rely upon them. This, whether fewer have the heart or the ſkill to do, I ſhall not determine; but this I am ſure, this is that which every one ought to do, who profeſſes to love truth, and would not impoſe upon himſelf; which is a ſurer way to be made a fool of than by being expoſed to the ſophiſtry of others. The diſpoſition to put any cheat upon ourſelves, works conſtantly, and we are pleaſed with it, but are impatient of

EXAMINE.

of being bantered or miſled by others. The inability I here ſpeak of, is not any natural defect that makes men incapable of examining their own principles. To ſuch, rules of conducting their underſtandings are uſeleſs, and that is the caſe of very few. The great number is of thoſe whom the ill habit of never exerting their thoughts has diſabled: the powers of their minds are ſtarved by diſuſe, and have loſt that reach and ſtrength which nature fitted them to receive from exerciſe. Thoſe who are in a condition to learn the firſt rules of plain arithmetic, and could be brought to caſt up an ordinary ſum, are capable of this, if they had but accuſtomed their minds to reaſoning: but they that have wholly neglected the exerciſe of their underſtandings in this way,

way, will be very far at firſt from being able to do it, and as unfit for it as one unpractiſed in figures to caſt up a ſhopbook, and perhaps think it as ſtrange to be ſet about it. And yet it muſt nevertheleſs be confeſſed to be a wrong uſe of our underſtandings to build our tenets (in things where we are concerned to hold the truth) upon principles that may lead us into error. We take our principles at haphazard upon truſt, and without ever having examined them, and then believe a whole ſyſtem, upon a preſumption that they are true and ſolid; and what is all this but childiſh, ſhameful, ſenſeleſs credulity?

In theſe two things, viz. an equal indifferency for all truth; I mean the

EXAMINE.

the receiving it in the love of it as truth, but not loving it for any other reaſon before we know it to be true; and in the examination of our principles, and not receiving any for ſuch, nor building on them till we are fully convinced, as rational creatures, of their ſolidity, truth and certainty, conſiſts that freedom of the underſtanding which is neceſſary to a rational creature, and without which it is not truly an underſtanding. It is conceit, fancy, extravagance, any thing rather than underſtanding, if it muſt be under the conſtraint of receiving and holding opinions by the authority of any thing but their own, not fancied, but perceived, evidence. This was rightly called impoſition, and is of all others the worſt and moſt dangerous ſort of it. For we

impoſe

impoſe upon ourſelves, which is the ſtrongeſt impoſition of all others; and we impoſe upon ourſelves in that part which ought with the greateſt care to be kept free from all impoſition. The world is apt to caſt great blame on thoſe who have an indifferency for opinions, eſpecially in religion. I fear this is the foundation of great error and worſe conſequences. To be indifferent which of two opinions is true, is the right temper of the mind that preſerves it from being impoſed on, and diſpoſes it to examine with that indifferency, till it has done it's beſt to find the truth, and this is the only direct and ſafe way to it. But to be indifferent whether we embrace falſhood or truth or no, is the great road to error. Thoſe who are not indifferent

ent which opinion is true, are guilty of this; they ſuppoſe, without examining, that what they hold is true, and then think they ought to be zealous for it. Thoſe, it is plain by their warmth and eagerneſs, are not indifferent for their own opinions, but methinks are very indifferent whether they be true or falſe, ſince they cannot endure to have any doubts raiſed, or objections made againſt them; and it is viſible they never have made any themſelves, and ſo never having examined them, know not, nor are concerned, as they ſhould be, to know whether they be true or falſe.

Theſe are the common and moſt general miſcarriages, which I think men ſhould avoid or rectify in a right conduct of their underſtandings,

ings, and ſhould be particularly taken care of in education. The buſineſs whereof in reſpect of knowledge, is not, as I think, to perfect a learner in all or any one of the ſciences, but to give his mind that freedom, that diſpoſition, and thoſe habits that may enable him to attain any part of knowledge he ſhall apply himſelf to, or ſtand in need of in the future courſe of his life.

This, and this only is well principling, and not the inſtilling a reverence and veneration for certain dogmas under the ſpecious title of principles, which are often ſo remote from that truth and evidence which belongs to principles, that they ought to be rejected as falſe and erroneous, and is often the cauſe, to men ſo educated, when they

they come abroad into the world, and find they cannot maintain the principles, ſo taken up and reſted in, to caſt off all principles, and turn perfect ſceptics, regardleſs of knowledge and virtue.

There are ſeveral weakneſſes and defects in the underſtanding, either from the natural temper of the mind, or ill habits taken up, which hinder it in it's progreſs to knowledge. Of theſe there are as many poſſibly to be found, if the mind were thoroughly ſtudied, as there are diſeaſes of the body, each whereof clogs and diſables the underſtanding to ſome degree, and therefore deſerves to be looked after and cured. I ſhall ſet down ſome few to excite men, eſpecially thoſe who make knowledge their buſineſs, to look into

EXAMINE.

into themſelves, and obſerve whether they do not indulge ſome weakneſs, allow ſome miſcarriages in the management of their intellectual faculty, which is prejudicial to them in the ſearch of truth.

SECTION XIII.

OBSERVATION.

Particular matters of fact are the undoubted foundations on which our civil and natural knowledge is built: the benefit the underſtanding makes of them is to draw from them concluſions, which may be as ſtanding rules of knowledge, and conſequently of practice. The mind often makes not that benefit it ſhould of the information it receives from the accounts of civil or natural hiſtorians, in being too forward,

ward, or too ſlow in making obſervations on the particular facts recorded in them.

There are thoſe who are very aſſiduous in reading, and yet do not much advance their knowledge by it. They are delighted with the ſtories that are told, and perhaps can tell them again, for they make all they read nothing but hiſtory to themſelves; but not reflecting on it, not making to themſelves obſervations from what they read, they are very little improved by all that croud of particulars that either paſs through, or lodge themſelves in their underſtandings. They dream on in a conſtant courſe of reading and cramming themſelves, but not digeſting any thing, it produces nothing but an heap of crudities.

If their memories retain well, one may ſay they have the materials of knowledge, but like thoſe for building, they are of no advantage, if there be no other uſe made of them but to let them lie heaped up together. Oppoſite to theſe there are others who loſe the improvement they ſhould make of matters of fact by a quite contrary conduct. They are apt to draw general concluſions, and raiſe axioms from every particular they meet with. Theſe make as little true benefit of hiſtory as the other, nay, being of forward and active ſpirits, receive more harm by it; it being of worſe conſequence to ſteer one's thoughts by a wrong rule, than to have none at all, error doing to buſy men much more harm, than ignorance to the ſlow and ſluggiſh.

OBSERVATION.

Between theſe, thoſe ſeem to do beſt who taking material and uſeful hints, ſometimes from ſingle matters of fact, carry them in their minds to be judged of, by what they ſhall find in hiſtory to confirm or reverſe theſe imperfect obſervations; which may be eſtabliſhed into rules fit to be relied on, when they are juſtified by a ſufficient and wary induction of particulars. He that makes no ſuch reflections on what he reads, only loads his mind with a rhapſody of tales fit in winter nights for the entertainment of others; and he that will improve every matter of fact into a maxim, will abound in contrary obſervations, that can be of no other uſe but to perplex and pudder him, if he compares them; or elſe to miſguide him, if he gives himſelf up to

the authority of that, which for it's novelty, or for ſome other fancy, beſt pleaſes him.

SECTION XIII.

BIAS.

Next to theſe we may place thoſe who ſuffer their own natural tempers and paſſions they are poſſeſſed with to influence their judgments, eſpecially of men and things that may any way relate to their preſent circumſtances and intereſt. Truth is all ſimple, all pure, will bear no mixture of any thing elſe with it. It is rigid and inflexible to any by intereſts; and ſo ſhould the underſtanding be, whoſe uſe and excellency lies in conforming itſelf to it. To think of every thing juſt as it is in itſelf, is the proper buſineſs

fineſs of the underſtanding, though it be not that which men always employ it to. This all men at firſt hearing, allow is the right uſe every one ſhould make of his underſtanding. No body will be at ſuch an open defiance with common ſenſe, as to profeſs that we ſhould not endeavour to know, and think of things as they are in themſelves, and yet there is nothing more frequent than to do the contrary; and men are apt to excuſe themſelves, and think they have reaſon to do ſo, if they have but a pretence that it is for God, or a good cauſe, that is, in effect for themſelves, their own perſuaſion, or party: for to thoſe in their turns the ſeveral ſects of men, eſpecially in matters of religion, entitle God and a good cauſe. But God requires not men to wrong

or misuse their faculties for him, nor to lie to others or themselves for his sake; which they purposely do who will not suffer their understandings to have right conceptions of the things proposed to them, and designedly restrain themselves from having just thoughts of every thing, as far as they are concerned to enquire. And as for a good cause, that needs not such ill helps; if it be good, truth will support it, and it has no need of fallacy or falsehood.

SECTION XIV.

ARGUMENTS.

Very much of kin to this is the hunting after arguments to make good one side of a question, and wholly to neglect and refuse those which

which favour the other ſide. What is this but wilfully to miſguide the underſtanding? and is ſo far from giving truth it's due value, that it wholly debaſes it: eſpouſe opinions that beſt comport with their power, profit, or credit, and then ſeek arguments to ſupport them. Truth, light upon this way, is of no more avail to us than error; for what is ſo taken up by us, may be falſe as well as true, and he has not done his duty who has thus ſtumbled upon truth in his way to preferment.

There is another, but more innocent way of collecting arguments, very familiar among bookiſh men, which is to furniſh themſelves with the arguments they meet with pro and con in the queſtions they ſtudy.

This helps them not to judge right, nor argue ſtrongly, but only to talk copiouſly on either ſide, without being ſteady and ſettled in their own judgments: for ſuch arguments gathered from other men's thoughts, floating only in the memory, are there ready indeed to ſupply copious talk with ſome appearance of reaſon, but are far from helping us to judge right. Such variety of arguments only diſtract the underſtanding that relies on them, unleſs it has gone farther than ſuch a ſuperficial way of examining; this is to quit truth for appearance, only to ſerve our vanity. The ſure and only way to get true knowledge, is to form in our minds clear ſettled notions of things, with names annexed to thoſe determined ideas. Theſe we are to conſider, and with their

ſeveral

ſeveral relations and habitudes, and not amuſe ourſelves with floating names, and words of indetermined ſignification, which we can uſe in ſeveral ſenſes to ſerve a turn. It is in the perception of the habitudes and reſpects our ideas have one to another, that real knowledge conſiſts; and when a man once perceives how far they agree or diſagree one with another, he will be able to judge of what other people ſay, and will not need to be led by the arguments of others, which are many of them nothing but plauſible ſophiſtry. This will teach him to ſtate the queſtion right, and ſee whereon it turns; and thus he will ſtand upon his own legs, and know by his own underſtanding. Whereas by collecting and learning arguments by heart, he will be but a retainer to others;

others; and when any one queſtions the foundations they are built upon, he will be at a nonplus, and be fain to give up his implicit knowledge.

SECTION XV.

HASTE.

Labour for labour' ſake is againſt nature. The underſtanding, as well as all the other faculties, chooſes always the ſhorteſt way to it's end, would preſently obtain the knowledge it is about, and then ſet upon ſome new inquiry. But this, whether lazineſs or haſte often miſleads it, and makes it content itſelf with improper ways of ſearch, and ſuch as will not ſerve the turn. Sometimes it reſts upon teſtimony, when teſtimony of right has nothing to do, becauſe it is eaſier to believe

HASTE.

believe than to be ſcientifically inſtructed. Sometimes it contents itſelf with one argument, and reſts ſatisfied with that, as it were a demonſtration; whereas the thing under proof is not capable of demonſtration, and therefore muſt be ſubmitted to the trial of probabilities, and all the material arguments pro and con be examined and brought to a balance. In ſome caſes the mind is determined by probable topics in inquiries, where demonſtration may be had. All theſe, and ſeveral others, which lazineſs, impatience, cuſtom, and want of uſe and attention lead men into, are miſapplications of the underſtanding in the ſearch of truth. In every queſtion, the nature and manner of the proof it is capable of, ſhould firſt be conſidered to make our

HASTE.

our inquiry ſuch as it ſhould be. This would ſave a great deal of frequently miſemployed pains, and lead us ſooner to that diſcovery and poſſeſſion of truth we are capable of. The multiplying variety of arguments, eſpecially frivolous ones, ſuch as are all that are merely verbal, is not only loſt labour, but cumbers the memory to no purpoſe, and ſerves only to hinder it from ſeizing and holding of the truth in all thoſe caſes which are capable of demonſtration. In ſuch a way of proof the truth and certainty is ſeen, and the mind fully poſſeſſes itſelf of it; when in the other way of aſſent, it only hovers about it, is amuſed with uncertainties. In this ſuperficial way, indeed, the mind is capable of more variety of plauſible talk, but is not enlarged as it ſhould be in it's

HASTE.

it's knowledge. It is to this ſame haſte and impatience of the mind alſo, that a not due tracing of the arguments to their true foundation is owing; men ſee a little, preſume a great deal, and ſo jump to the concluſion. This is a ſhort way to fancy and conceit, and (if firmly embraced) to opiniatrety, but is certainly the fartheſt way about to knowledge. For he that will know, muſt by the connection of the proofs ſee the truth, and the ground it ſtands on; and therefore, if he has for haſte ſkipt over what he ſhould have examined, he muſt begin and go over all again, or elſe he will never come to knowledge.

SECTION XVI.

DESULTORY.

Another fault of as ill conſequence as this, which proceeds alſo from lazineſs with a mixture of vanity, is the ſkipping from one ſort of knowledge to another. Some men's tempers are quickly weary of any one thing. Conſtancy and aſſiduity is what they cannot bear: the ſame ſtudy long continued in, is as intolerable to them, as the appearing long in the ſame clothes or faſhion is to a court lady.

SECTION XVII.

SMATTERING.

Others, that they may ſeem univerſally knowing, get a little ſmattering in every thing. Both theſe may

SMATTERING.

may fill their heads with ſuperficial notions of things, but are very much out of the way of attaining truth or knowledge.

SECTION XVIII.

UNIVERSALITY.

I do not here ſpeak againſt the taking a taſte of every ſort of knowledge; it is certainly very uſeful and neceſſary to form the mind, but then it muſt be done in a different way, and to a different end. Not for talk and vanity to fill the head with ſhreds of all kinds, that he who is poſſeſſed of ſuch a frippery, may be able to match the diſcourſes of all he ſhall meet with, as if nothing could come amiſs to him; and his head was ſo well ſtored a magazine, that nothing could be pro-

propoſed which he was not maſter of, and was readily furniſhed to entertain any one on. This is an excellency indeed, and a great one too, to have a real and true knowledge in all or moſt of the objects of contemplation. But it is what the mind of one and the ſame man can hardly attain unto; and the inſtances are ſo few of thoſe who have in any meaſure approached towards it, that I know not whether they are to be propoſed as examples in the ordinary conduct of the underſtanding. For a man to underſtand fully the buſineſs of his particular calling in the commonwealth, and of religion, which is his calling as he is a man in the world, is uſually enough to take up his whole time; and there are few that inform themſelves in theſe, which

which is every man's proper and peculiar buſineſs, ſo to the bottom as they ſhould do. But though this be ſo, and there are very few men that extend their thoughts towards univerſal knowledge; yet I do not doubt but if the right way were taken, and the methods of enquiry were ordered as they ſhould be, men of little buſineſs and great leiſure might go a great deal farther in it than is uſually done. To return to the buſineſs in hand, the end and uſe of a little inſight in thoſe parts of knowledge, which are not a man's proper buſineſs, is to accuſtom our minds to all ſorts of ideas, and the proper ways of examining their habitudes and relations. This gives the mind a freedom, and the exerciſing the underſtanding in the ſeveral ways of en-

quiry and reaſoning which the moſt ſkilful have made uſe of, teaches the mind ſagacity and warineſs, and a ſuppleneſs to apply itſelf more cloſely and dexterouſly to the bents and turns of the matter in all it's reſearches. Beſides this univerſal taſte of all the ſciences, with an indifferency before the mind is poſſeſſed with any one in particular, and grown into love and admiration of what is made it's darling, will prevent another evil very commonly to be obſerved in thoſe who have from the beginning been ſeaſoned only by one part of knowledge. Let a man be given up to the contemplation of one ſort of knowledge, and that will become every thing. The mind will take ſuch a tincture from a familiarity with that object, that every thing elſe,

how remote ſoever, will be brought under the ſame view. A metaphyſician will bring plowing and gardening immediately to abſtract notions, the hiſtory of nature ſhall ſignify nothing to him. An alchymiſt, on the contrary, ſhall reduce divinity to the maxims of his laboratory, explain morality by *Sal*, *Sulphur*, and *Mercury*, and allegorize the ſcripture itſelf, and the ſacred myſteries thereof, into the philoſopher's ſtone. And I heard once a man, who had a more than ordinary excellency in muſic, ſeriouſly accommodate *Moſes*' ſeven days of the firſt week to the notes of muſic, as if from thence had been taken the meaſure and method of the creation. It is of no ſmall conſequence to keep the mind from ſuch a poſſeſſion, which I think is beſt

done by giving it a fair and equal view of the whole intellectual world, wherein it may ſee the order, rank, and beauty of the whole, and give a juſt allowance to the diſtinct provinces of the ſeveral ſciences in the due order and uſefulneſs of each of them.

If this be that which old men will not think neceſſary, nor be eaſily brought to; it is fit at leaſt that it ſhould be practiſed in the breeding of the young. The buſineſs of education, as I have already obſerved, is not, as I think, to make them perfect in any one of the ſciences, but ſo to open and diſpoſe their minds as may beſt make them capable of any, when they ſhall apply themſelves to it. If men are for a long time accuſtomed only to one

UNIVERSALITY.

one ſort or method of thoughts, their minds grow ſtiff in it, and do not readily turn to another. It is therefore to give them this freedom, that I think they ſhould be made to look into all ſorts of knowledge, and exerciſe their underſtandings in ſo wide a variety and ſtock of knowledge. But I do not propoſe it as a variety and ſtock of knowledge, but a variety and freedom of thinking, as an increaſe of the powers and activity of the mind, not as an enlargement of it's poſſeſſions.

SECTION XIX.

READING.

This is that which I think great readers are apt to be miſtaken in. Thoſe who have read of every thing, are thought to underſtand every

thing too; but it is not always ſo. Reading furniſhes the mind only with materials of knowledge, it is thinking makes what we read our's. We are of the ruminating kind, and it is not enough to cram ourſelves with a great load of collections, unleſs we chew them over again, they will not give us ſtrength and nouriſhment. There are indeed in ſome writers viſible inſtances of deep thoughts, cloſe and acute reaſoning, and ideas well purſued. The light theſe would give, would be of great uſe, if their readers would obſerve and imitate them; all the reſt at beſt are but particulars fit to be turned into knowledge; but that can be done only by our own meditation, and examining the reach, force and coherence of what is ſaid; and then as far as we apprehend and ſee

ſee the connection of ideas, ſo far it is our's; without that it is but ſo much looſe matter floating in our brain. The memory may be ſtored, but the judgment is little better, and the ſtock of knowledge not increaſed by being able to repeat what others have ſaid, or produce the arguments we have found in them. Such a knowledge as this, is but knowledge by hearſay, and the oſtentation of it is at beſt but talking by rote, and very often upon weak and wrong principles. For all that is to be found in books, is not built upon true foundations, nor always rightly deduced from the principles it is pretended to be built on. Such an examen as is requiſite to diſcover that, every reader's mind is not forward to make; eſpecially in thoſe who have given

themſelves up to a party, and only hunt for what they can ſcrape together, that may favour and ſupport the tenets of it. Such men wilfully exclude themſelves from truth, and from all true benefit to be received by reading. Others of more indifferency often want attention and induſtry. The mind is backward in itſelf to be at the pains to trace every argument to it's original, and to ſee upon what baſis it ſtands, and how firmly; but yet it is this that gives ſo much the advantage to one man more than another in reading. The mind ſhould, by ſevere rules, be tied down to this at firſt uneaſy taſk, uſe and exerciſe will give it facility. So that thoſe who are accuſtomed to it, readily, as it were with one caſt of the eye, take a view of the argument, and preſently, in moſt

moſt caſes, ſee where it bottoms. Thoſe who have got this faculty, one may ſay, have got the true key of books, and the clue to lead them through the mizmaze of variety of opinions and authors to truth and certainty. This young beginners ſhould be entered in, and ſhewed the uſe of, that they might profit by their reading. Thoſe who are ſtrangers to it, will be apt to think it too great a clog in the way of men's ſtudies, and they will ſuſpect they ſhall make but ſmall progreſs, if, in the books they read, they muſt ſtand to examine and unravel every argument, and follow it ſtep by ſtep up to it's original.

I anſwer, this is a good objection, and ought to weigh with thoſe whoſe reading is deſigned for much talk

talk and little knowledge, and I have nothing to ſay to it. But I am here inquiring into the conduct of the underſtanding in it's progreſs towards knowledge; and to thoſe who aim at that, I may ſay, that he who fair and ſoftly goes ſteadily forward in a courſe that points right, will ſooner be at his journey's end, than he that runs after every one he meets, though he gallop all day full ſpeed.

To which let me add, that this way of thinking on, and profiting by what we read, will be a clog and rub to any one only in the beginning; when cuſtom and exerciſe has made it familiar, it will be diſpatched in moſt occaſions, without reſting or interruption in the courſe of our reading. The motions and views

READING.

views of a mind exercised that way, are wonderfully quick; and a man used to such sort of reflections, sees as much at one glimpse as would require a long discourse to lay before another, and make out in an entire and gradual deduction. Besides, that when the first difficulties are over, the delight and sensible advantage it brings, mightily encourages and enlivens the mind in reading, which without this is very improperly called study.

SECTION XX.

INTERMEDIATE PRINCIPLES.

As an help to this, I think it may be proposed, that for the saving the long progression of the thoughts to remote and first principles in every case, the mind should provide itself several

ſeveral ſtages; that is to ſay, intermediate principles, which it might have recourſe to in the examining thoſe poſitions that come in it's way. Theſe, though they are not ſelfevident principles, yet if they have been made out from them by a wary and unqueſtionable deduction, may be depended on as certain and infallible truths, and ſerve as unqueſtionable truths to prove other points depending on them by a nearer and ſhorter view than remote and general maxims. Theſe may ſerve as landmarks to ſhew what lies in the direct way of truth, or is quite beſides it. And thus mathematicians do, who do not in every new problem run it back to the firſt axioms, through all the whole train of intermediate propoſitions. Certain theorems that they have

INTERMEDIATE PRINCIPLES.

have ſettled to themſelves upon ſure demonſtration, ſerve to reſolve to them multitudes of propoſitions which depend on them, and are as firmly made out from thence, as if the mind went afreſh over every link of the whole chain that ties them to firſt ſelfevident principles. Only in other ſciences great care is to be taken that they eſtabliſh thoſe intermediate principles, with as much caution, exactneſs and indifferency, as mathematicians uſe in the ſettling any of their great theorems. When this is not done, but men take up the principles in this or that ſcience upon credit, inclination, intereſt, &c. in haſte without due examination, and moſt unqueſtionable proof, they lay a trap for themſelves, and as much as in them lies captivate their underſtand-

ſtandings to miſtake, falſhood and error.

SECTION XXI.

PARTIALITY.

As there is a partiality to opinions, which, as we have already obſerved, is apt to miſlead the underſtanding; ſo there is often a partiality to ſtudies, which is prejudicial alſo to knowledge and improvement. Thoſe ſciences which men are particularly verſed in, they are apt to value and extol, as if that part of knowledge which every one has acquainted himſelf with, were that alone which was worth the having, and all the reſt were idle, and empty amuſements, comparatively of no uſe or importance. This is the effect of ignorance and not

not knowledge, the being vainly puffed up with a flatulency, arising from a weak and narrow comprehension. It is not amiss that every one should relish the science that he has made his peculiar study; a view of it's beauties, and a sense of it's usefulness, carries a man on with the more delight and warmth in the pursuit and improvement of it. But the contempt of all other knowledge, as if it were nothing in comparison of law or physic, of astronomy or chymistry, or perhaps some yet meaner part of knowledge, wherein I have got some smattering, or am somewhat advanced, is not only the mark of a vain or little mind, but does this prejudice in the conduct of the understanding, that it coops it up within narrow bounds, and hinders it from looking abroad into other

other provinces of the intellectual world, more beautiful poſſibly, and more fruitful than that which it had till then laboured in; wherein it might find, beſides new knowledge, ways or hints whereby it might be enabled the better to cultivate it's own.

SECTION XXII.

THEOLOGY.

There is indeed one ſcience (as they are now diſtinguiſhed) incomparably above all the reſt, where it is not by corruption narrowed into a trade or faction, for mean or ill ends, and ſecular intereſts; I mean theology, which containing the knowledge of God and his creatures, our duty to him and our fellow creatures, and a view of our preſent

THEOLOGY.

preſent and future ſtate, is the comprehenſion of all other knowledge directed to it's true end; i. e. the honour and veneration of the Creator, and the happineſs of mankind. This is that noble ſtudy which is every man's duty, and every one that can be called a rational creature is capable of. The works of nature, and the words of revelation, diſplay it to mankind in characters ſo large and viſible, that thoſe who are not quite blind may in them read, and ſee the firſt principles and moſt neceſſary parts of it; and from thence, as they have time and induſtry, may be enabled to go on to the more abſtruſe parts of it, and penetrate into thoſe infinite depths filled with the treaſures of wiſdom and knowledge. This is that ſcience, which would truly en-

large men's minds, were it ſtudied, or permitted to be ſtudied every where with that freedom, love of truth and charity which it teaches, and were not made, contrary to it's nature, the occaſion of ſtrife, faction, malignity, and narrow impoſitions. I ſhall ſay no more here of this, but that it is undoubtedly a wrong uſe of my underſtanding, to make it the rule and meaſure of another man's; a uſe which it is neither fit for nor capable of.

SECTION XXIII.

PARTIALITY.

This partiality, where it is not permitted an authority to render all other ſtudies inſignificant or contemptible, is often indulged ſo far as to be relied upon, and made uſe of

of in other parts of knowledge, to which it does not at all belong, and wherewith it has no manner of affinity. Some men have ſo uſed their heads to mathematical figures, that giving a preference to the methods of that ſcience, they introduce lines and diagrams into their ſtudy of divinity, or politic enquiries, as if nothing could be known without them; and others accuſtomed to retired ſpeculations, run natural philoſophy into metaphyſical notions, and the abſtract generalities of logic; and how often may one meet with religion and morality treated of in the terms of the laboratory, and thought to be improved by the methods and notions of chymiſtry. But he that will take care of the conduct of his underſtanding to direct it right to

the knowledge of things, muſt avoid thoſe undue mixtures, and not by a fondneſs for what he has found uſeful and neceſſary in one, tranſfer it to another ſcience, where it ſerves only to perplex and confound the underſtanding. It is a certain truth, that *res nolunt male adminiſtrari*, it is no leſs certain, *res nolunt male intelligi*. Things themſelves are to be conſidered as they are in themſelves, and then they will ſhew us in what way they are to be underſtood. For to have right conceptions about them, we muſt bring our underſtandings to the inflexible natures, and unalterable relations of things, and not endeavour to bring things to any preconceived notions of our own.

There is another partiality very com-

commonly obſervable in men of ſtudy, no leſs prejudicial nor ridiculous than the former; and that is a fantaſtical and wild attributing all knowledge to the ancients alone, or to the moderns. This raving upon antiquity in matter of poetry, *Horace* has wittily deſcribed and expoſed in one of his ſatyrs. The ſame ſort of madneſs may be found in reference to all the other ſciences. Some will not admit an opinion not authorized by men of old, who were then all giants in knowledge. Nothing is to be put into the treaſury of truth or knowledge, which has not the ſtamp of *Greece* or *Rome* upon it; and ſince their days will ſcarce allow that men have been able to ſee, think or write. Others with a like extravagancy, contemn all that the ancients have left us,

and being taken with the modern inventions and diſcoveries, lay by all that went before, as if whatever is called old muſt have the decay of time upon it, and truth too were liable to mould and rottenneſs. Men, I think, have been much the ſame for natural endowments in all times. Faſhion, diſcipline and education, have put eminent differences in the ages of ſeveral countries, and made one generation much differ from another in arts and ſciences: but truth is always the ſame; time alters it not, nor is it the better or worſe for being of ancient or modern tradition. Many were eminent in former ages of the world for their diſcovery and delivery of it; but though the knowledge they have left us be worth our ſtudy, yet they exhauſted not all it's treaſure;

they

they left a great deal for the induſtry and ſagacity of after ages, and ſo ſhall we. That was once new to them which any one now receives with veneration for it's antiquity; nor was it the worſe for appearing as a novelty, and that which is now embraced for it's newneſs, will, to poſterity, be old, but not thereby be leſs true or leſs genuine. There is no occaſion on this account to oppoſe the ancients and the moderns to one another, or to be ſqueamiſh on either ſide. He that wiſely conducts his mind in the purſuit of knowledge, will gather what lights, and get what helps he can from either of them, from whom they are beſt to be had, without adoring the errors, or rejecting the truths which he may find mingled in them.

Another partiality may be obſerv-

ed, in ſome to vulgar, in others to heterodox tenets: ſome are apt to conclude, that what is the common opinion cannot but be true; ſo many men's eyes they think cannot but ſee right; ſo many men's underſtandings of all ſorts cannot be deceived, and therefore will not venture to look beyond the received notions of the place and age, nor have ſo preſumptuous a thought as to be wiſer than their neighbours. They are content to go with the croud, and ſo go eaſily, which they think is going right, or at leaſt ſerves them as well. But however, *vox populi vox Dei* has prevailed as a maxim, yet I do not remember wherever God delivered his oracles by the multitude, or nature truths by the herd. On the other ſide, ſome fly all common opinions as either falſe or frivolous.

The

PARTIALITY.

The title of manyheaded beaſt is a ſufficient reaſon to them to conclude, that no truths of weight or conſequence can be lodged there. Vulgar opinions are ſuited to vulgar capacities, and adapted to the ends of thoſe that govern. He that will know the truth of things, muſt leave the common and beaten track, which none but weak and ſervile minds are ſatisfied to trudge along continually in. Such nice palates reliſh nothing but ſtrange notions quite out of the way: whatever is commonly received, has the mark of the beaſt on it; and they think it a leſſening to them to hearken to it, or receive it; their mind runs only after paradoxes; theſe they ſeek, theſe they embrace, theſe alone they vent, and ſo as they think, diſtinguiſh themſelves from the vulgar.

But

But common or uncommon are not the marks to diſtinguiſh truth or falſhood, and therefore ſhould not be any bias to us in our enquiries. We ſhould not judge of things by men's opinions, but of opinions by things. The multitude reaſon but ill, and therefore may be well ſuſpected, and cannot be relied on, nor ſhould be followed as a ſure guide; but philoſophers who have quitted the orthodoxy of the community, and the popular doctrines of their countries, have fallen into as extravagant and as abſurd opinions as ever common reception countenanced. It would be madneſs to refuſe to breathe the common air, or quench one's thirſt with water, becauſe the rabble uſe them to theſe purpoſes; and if there are conveniences of life which common

mon uſe reaches not, it is not reaſon to reject them, becauſe they are not grown into the ordinary faſhion of the country, and every villager doth not know them.

Truth, whether in or out of faſhion, is the meaſure of knowledge, and the buſineſs of the underſtanding; whatſoever is beſides that, however authorized by conſent, or recommended by rarity, is nothing but ignorance, or ſomething worſe.

Another ſort of partiality there is, whereby men impoſe upon themſelves, and by it make their reading little uſeful to themſelves; I mean the making uſe of the opinions of writers, and laying ſtreſs upon their authorities, wherever they find them to favour their own opinions.

There

PARTIALITY.

There is nothing almoſt has done more harm to men dedicated to letters, than giving the name of ſtudy to reading, and making a man of great reading to be the ſame with a man of great knowledge, or at leaſt to be a title of honour. All that can be recorded in writing, are only facts or reaſonings. Facts are of three ſorts:

1. Merely of natural agents, obſervable in the ordinary operations of bodies one upon another, whether in the viſible courſe of things left to themſelves, or in experiments made by men, applying agents and patients to one another, after a peculiar and artificial manner.

2. Of voluntary agents, more eſpecially the actions of men in ſociety,

ciety, which makes civil and moral hiſtory.

3. Of opinions.

In theſe three conſiſts, as it ſeems to me, that which commonly has the name of learning; to which perhaps ſome may add a diſtinct head of critical writings, which indeed at bottom is nothing but matter of fact, and reſolves itſelf into this, that ſuch a man, or ſet of men, uſed ſuch a word or phraſe in ſuch a ſenſe, i. e. that they made ſuch ſounds the marks of ſuch ideas.

Under reaſonings I comprehend all the diſcoveries of general truths made by human reaſon, whether found by intuition, demonſtration, or probable deductions. And this is

is that which is, if not alone knowledge, (becauſe the truth or probability of particular propoſitions may be known too) yet is, as may be ſuppoſed, moſt properly the buſineſs of thoſe who pretend to improve their underſtandings, and make themſelves knowing by reading.

Books and reading are looked upon to be the great helps of the underſtanding, and inſtruments of knowledge, as it muſt be allowed that they are; and yet I beg leave to queſtion whether theſe do not prove an hindrance to many, and keep ſeveral bookiſh men from attaining to ſolid and true knowledge. This, I think, I may be permitted to ſay, that there is no part wherein the underſtanding needs a more careful and wary conduct, than in

the uſe of books; without which they will prove rather innocent amuſements than profitable employments of our time, and bring but ſmall additions to our knowledge.

There is not ſeldom to be found even amongſt thoſe who aim at knowledge, who with an unwearied induſtry, employ their whole time in books, who ſcarce allow themſelves time to eat or ſleep, but read, and read, and read on, but yet make no great advances in real knowledge, though there be no defect in their intellectual faculties, to which their little progreſs can be imputed. The miſtake here is, that it is uſually ſuppoſed, that by reading, the author's knowledge is transfuſed into the reader's underſtanding; and ſo it

it is, but not by bare reading, but by reading and underſtanding what he writ. Whereby I mean, not barely comprehending what is affirmed or denied in each propoſition (though that great readers do not always think themſelves concerned preciſely to do) but to ſee and follow the train of his reaſonings, obſerve the ſtrength and clearneſs of their connection, and examine upon what they bottom. Without this a man may read the diſcourſes of a very rational author, writ in a language and in propoſitions that he very well underſtands, and yet acquire not one jot of his knowledge; which conſiſting only in the perceived, certain, or probable connection of the ideas made uſe of in his reaſonings, the reader's knowledge is no farther increaſed, than he perceives that,

that, ſo much as he ſees of this connection, ſo much he knows of the truth or probability of that author's opinions.

All that he relies on without this perception, he takes upon truſt upon the author's credit, without any knowledge of it at all. This makes me not at all wonder to ſee ſome men ſo abound in citations, and build ſo much upon authorities, it being the ſole foundation on which they bottom moſt of their own tenets; ſo that in effect they have but a ſecond hand or implicit knowledge, i. e. are in the right, if ſuch an one from whom they borrowed it, were in the right in that opinion which they took from him, which indeed is no knowledge at all. Writers of this or former ages may

be good witneſſes of matters of fact which they deliver, which we may do well to take upon their authority; but their credit can go no farther than this, it cannot at all affect the truth and falſhood of opinions, which have no other ſort of trial but reaſon and proof, which they themſelves made uſe of to make themſelves knowing, and ſo muſt others too that will partake in their knowledge. Indeed it is an advantage that they have been at the pains to find out the proofs, and lay them in that order that may ſhew the truth or probability of their concluſions; and for this we owe them great acknowledgments for ſaving us the pains in ſearching out thoſe proofs which they have collected for us, and which poſſibly, after all our pains, we might not have

have found, nor been able to have ſet them in ſo good a light as that which they left them us in. Upon this account we are mightily beholding to judicious writers of all ages for thoſe diſcoveries and diſcourſes they have left behind them for our inſtruction, if we know how to make a right uſe of them; which is not to run them over in an haſty peruſal, and perhaps lodge their opinions, or ſome remarkable paſſages in our memories, but to enter into their reaſonings, examine their proofs, and then judge of the truth or falſhood, probability or improbability of what they advance; not by any opinion we have entertained of the author, but by the evidence he produces, and the conviction he affords us, drawn from things themſelves. Knowing is

ſeeing, and if it be ſo, it is madneſs to perſuade ourſelves that we do ſo by another man's eyes, let him uſe ever ſo many words to tell us, that what he aſſerts is very viſible. Till we ourſelves ſee it with our own eyes, and perceive it by our own underſtandings, we are as much in the dark, and as void of knowledge as before, let us believe any learned author as much as we will.

Euclid and *Archimedes* are allowed to be knowing, and to have demonſtrated what they ſay; and yet whoever ſhall read over their writings without perceiving the connection of their proofs, and ſeeing what they ſhew, though he may underſtand all their words, yet he is not the more knowing: he may believe indeed, but does not know what they

they ſay, and ſo is not advanced one jot in mathematical knowledge by all his reading of thoſe approved mathematicians.

SECTION XXIV.

HASTE.

The eagerneſs and ſtrong bent of the mind after knowledge, if not warily regulated, is often an hindrance to it. It ſtill preſſes into farther diſcoveries and new objects, and catches at the variety of knowledge, and therefore often ſtays not long enough on what is before it, to look into it as it ſhould for haſte, to purſue what is yet out of ſight. He that rides poſt through a country, may be able from the tranſient view, to tell how in general the parts lie, and may be able to give

ſome looſe deſcription of here a mountain, and there a plain, here a moraſs, and there a river; woodland in one part, and ſavanas in another. Such ſuperficial ideas and obſervations as theſe he may collect in galloping over it. But the more uſeful obſervations of the ſoil, plants, animals and inhabitants, with their ſeveral ſorts and properties, muſt neceſſarily eſcape him; and it is ſeldom men ever diſcover the rich mines, without ſome digging. Nature commonly lodges her treaſure and jewels in rocky ground. If the matter be knotty, and the ſenſe lies deep, the mind muſt ſtop and buckle to it, and ſtick upon it with labour and thought, and cloſe contemplation, and not leave it till it has maſtered the difficulty, and got poſſeſſion of truth. But here care

muſt be taken to avoid the other extreme: a man muſt not ſtick at every uſeleſs nicety, and expect myſteries of ſcience in every trivial queſtion or ſcruple that he may raiſe. He that will ſtand to pick up and examine every pebble that comes in his way, is as unlikely to return enriched and loaden with jewels, as the other that travelled full ſpeed. Truths are not the better nor the worſe for their obviouſneſs or difficulty, but their value is to be meaſured by their uſefulneſs and tendency. Inſignificant obſervations ſhould not take up any of our minutes, and thoſe that enlarge our view, and give light towards farther and uſeful diſcoveries, ſhould not be neglected, though they ſtop our courſe, and ſpend ſome of our time in a fixed attention.

HASTE.

'There is another haſte that does often, and will miſlead the mind if it be left to itſelf, and it's own conduct. The underſtanding is naturally forward, not only to learn it's knowledge by variety (which makes it ſkip over one to get ſpeedily to another part of knowledge) but alſo eager to enlarge it's views by running too faſt into general obſervations and concluſions, without a due examination of particulars enough whereon to found thoſe general axioms. This ſeems to enlarge their ſtock, but it is of fancies not realities; ſuch theories built upon narrow foundations ſtand but weakly, and if they fall not of themſelves, are at leaſt very hard to be ſupported againſt the aſſaults of oppoſition. And thus men being too haſty to erect to themſelves general notions

notions and ill grounded theories, find themſelves deceived in their ſtock of knowledge, when they come to examine their haſtily aſſumed maxims themſelves, or to have them attacked by others. General obſervations drawn from particulars, are the jewels of knowledge, comprehending great ſtore in a little room; but they are therefore to be made with the greater care and caution, leſt if we take counterfeit for true, our loſs and ſhame be the greater when our ſtock comes to a ſevere ſcrutiny. One or two particulars may ſuggeſt hints of enquiry, and they do well to take thoſe hints; but if they turn them into concluſions, and make them preſently general rules, they are forward indeed, but it is only to impoſe on themſelves by propoſitions aſſumed

HASTE.

aſſumed for truths without ſufficient warrant. To make ſuch obſervations, is, as has been already remarked, to make the head a magazine of materials, which can hardly be called knowledge, or at leaſt it is but like a collection of lumber not reduced to uſe or order; and he that makes every thing an obſervation, has the ſame uſeleſs plenty and much more falſhood mixed with it. The extremes on both ſides are to be avoided, and he will be able to give the beſt account of his ſtudies who keeps his underſtanding in the right mean between them.

SECTION XXV.

ANTICIPATION.

Whether it be a love of that which brings the firſt light and information

formation to their minds, and want of vigour and induſtry to enquire, or elſe that men content themſelves with any appearance of knowledge, right or wrong; which, when they have once got, they will hold faſt. This is viſible, that many men give themſelves up to the firſt anticipations of their minds, and are very tenacious of the opinions that firſt poſſeſs them; they are often as fond of their firſt conceptions as of their firſt born, and will by no means recede from the judgment they have once made, or any conjecture or conceit which they have once entertained. This is a fault in the conduct of the underſtanding, ſince this firmneſs or rather ſtiffneſs of the mind, is not from an adherence to truth, but a ſubmiſſion to prejudice. It is an unreaſonable homage paid to pre-

prepoſſeſſion, whereby we ſhew a reverence not to (what we pretend to ſeek) truth; but what by haphazard we chance to light on, be it what it will. This is viſibly a prepoſterous uſe of our faculties, and is a downright proſtituting of the mind to reſign it thus, and put it under the power of the firſt comer. This can never be allowed, or ought to be followed as a right way to knowledge, till the underſtanding (whoſe buſineſs it is to conform itſelf to what it finds on the objects without) can by it's own opiniatrety change that, and make the unalterable nature of things comply with it's own haſty determinations, which will never be. Whatever we fancy, things keep their courſe; and their habitudes, correſpondences and relations, keep the ſame to one another.

SEC-

SECTION XXVI.

RESIGNATION.

Contrary to theſe, but by a like dangerous exceſs on the other ſide, are thoſe who always reſign their judgment to the laſt man they heard or read. Truth never ſinks into theſe men's minds, nor gives any tincture to them, but camelion like, they take the colour of what is laid before them, and as ſoon loſe and reſign it to the next that happens to come in their way. The order wherein opinions are propoſed or received by us, is no rule of their rectitude, nor ought to be a cauſe of their preference. Firſt or laſt in this caſe, is the effect of chance, and not the meaſure of truth or falſhood. This every one muſt confeſs, and therefore ſhould, in the pur-

RESIGNATION.

purſuit of truth, keep his mind free from the influence of any ſuch accidents. A man may as reaſonably draw cuts for his tenets, regulate his perſuaſion by the caſt of a die, as take it up for it's novelty, or retain it becauſe it had his firſt aſſent, and he was never of another mind. Well weighed reaſons are to determine the judgment; thoſe the mind ſhould be always ready to hearken and ſubmit to, and by their teſtimony and ſuffrage, entertain or reject any tenet indifferently, whether it be a perfect ſtranger, or an old acquaintance.

SECTION XXVII.

PRACTICE.

Though the faculties of the mind are improved by exerciſe, yet they muſt

PRACTICE.

muſt not be put to a ſtreſs beyond their ſtrength. *Quid valeant humeri, quid ferre recuſent*, muſt be made the meaſure of every one's underſtanding, who has a deſire not only to perform well, but to keep up the vigour of his faculties, and not to balk his underſtanding by what is too hard for it. The mind by being engaged in a taſk beyond it's ſtrength, like the body, ſtrained by lifting at a weight too heavy, has often it's force broken, and thereby gets an unaptneſs or an averſion to any vigorous attempt ever after. A ſinew cracked ſeldom recovers it's former ſtrength, or at leaſt the tenderneſs of the ſprain remains a good while after, and the memory of it longer, and leaves a laſting caution in the man, not to put the part quickly again to any robuſt employment.

ment. So it fares in the mind once jaded by an attempt above it's power, it either is disabled for the future, or else checks at any vigorous undertaking ever after, at least is very hardly brought to exert it's force again on any subject that requires thought and meditation. The understanding should be brought to the difficult and knotty parts of knowledge, that try the strength of thought, and a full bent of the mind by insensible degrees; and in such a gradual proceeding nothing is too hard for it. Nor let it be objected, that such a slow progress will never reach the extent of some sciences. It is not to be imagined how far constancy will carry a man; however it is better walking slowly in a rugged way, than to break a leg, and be a cripple. He that begins

gins with the calf may carry the ox; but he that will at firſt go to take up an ox, may ſo diſable himſelf, as not to be able to lift a calf after that. When the mind, by inſenſible degrees, has brought itſelf to attention and cloſe thinking, it will be able to cope with difficulties, and maſter them without any prejudice to itſelf, and then it may go on roundly. Every abſtruſe problem, every intricate queſtion will not baffle, diſcourage, or break it. But though putting the mind unprepared upon an unuſual ſtreſs that may diſcourage or damp it for the future, ought to be avoided; yet this muſt not run it, by an over great ſhyneſs of difficulties, into a lazy ſauntering about ordinary and obvious things, that demand no thought or application. This de-

baſes and enervates the underſtanding, makes it weak and unfit for labour. This is a ſort of hovering about the ſurface of things, without any inſight into them or penetration; and when the mind has been once habituated to this lazy recumbency and ſatisfaction on the obvious ſurface of things, it is in danger to reſt ſatisfied there, and go no deeper, ſince it cannot do it without pains and digging. He that has for ſome time accuſtomed himſelf to take up with what eaſily offers itſelf at firſt view, has reaſon to fear he ſhall never reconcile himſelf to the fatigue of turning and tumbling things in his mind to diſcover their more retired and more valuable ſecrets.

It is not ſtrange that methods of learn-

PRACTICE.

learning which ſcholars have been accuſtomed to in their beginning and entrance upon the ſciences, ſhould influence them all their lives, and be ſettled in their minds by an overruling reverence, eſpecially if they be ſuch as univerſal uſe has eſtabliſhed. Learners muſt at firſt be believers, and their maſters' rules having been once made axioms to them, it is no wonder they ſhould keep that dignity, and by the authority they have once got, miſlead thoſe who think it ſufficient to excuſe them, if they go out of their way in a well beaten track.

SECTION XXVIII.

WORDS.

I have copiouſly enough ſpoken of the abuſe of words in another

place, and therefore ſhall upon this reflection, that the ſciences are full of them, warn thoſe that would conduct their underſtandings right, not to take any term, howſoever authorized by the language of the ſchools, to ſtand for any thing till they have an idea of it. A word may be of frequent uſe and great credit with ſeveral authors, and be by them made uſe of, as if it ſtood for ſome real being; but yet if he that reads cannot frame any diſtinct idea of that being, it is certainly to him a mere empty ſound without a meaning, and he learns no more by all that is ſaid of it, or attributed to it, than if it were affirmed only of that bare empty ſound. They who would advance in knowledge, and not deceive and ſwell themſelves with a little articulated air,

air, ſhould lay down this a fundamental rule, not to take words for things, nor ſuppoſe that names in books ſignify real entities in nature, till they can frame clear and diſtinct ideas of thoſe entities. It will not perhaps be allowed if I ſhould ſet down *ſubſtantial forms* and *intentional ſpecies*, as ſuch that may juſtly be ſuſpected to be of this kind of inſignificant terms. But this I am ſure, to one that can form no determined ideas of what they ſtand for, they ſignify nothing at all; and all that he thinks he knows about them, is to him ſo much knowledge about nothing, and amounts at moſt but to a learned ignorance. It is not without all reaſon ſuppoſed, that there are many ſuch empty terms to be found in ſome learned writers, to

which they had recourſe to etch out their ſyſtems where their underſtandings could not furniſh them with conceptions from things. But yet I believe the ſuppoſing of ſome realities in nature anſwering thoſe and the like words, have much perplexed ſome, and quite miſled others in the ſtudy of nature. That which in any diſcourſe ſignifies, *I know not what*, ſhould be conſidered *I know not when*. Where men have any conceptions, they can, if they are ever ſo abſtruſe or abſtracted, explain them, and the terms they uſe for them. For our conceptions being nothing but ideas, which are all made up of ſimple ones. If they cannot give us the ideas their words ſtand for, it is plain they have none. To what purpoſe can it be to hunt after his conceptions, who has none,

or

or none diſtinct? He that knew not what he himſelf meant by a learned term, cannot make us know any thing by his uſe of it, let us beat our heads about it ever ſo long. Whether we are able to comprehend all the operations of nature and the manners of them, it matters not to enquire; but this is certain, that we can comprehend no more of them than we can diſtinctly conceive; and therefore to obtrude terms where we have no diſtinct conceptions, as if they did contain or rather conceal ſomething, is but an artifice of learned vanity, to cover a defect in an hypotheſis or our underſtandings. Words are not made to conceal, but to declare and ſhew ſomething; where they are by thoſe, who pretend to inſtruct, otherwiſe uſed, they conceal

indeed ſomething; but that which they conceal is nothing but the ignorance, error, or ſophiſtry of the talker, for there is, in truth, nothing elſe under them.

SECTION XXIX.

WANDERING.

That there is a conſtant ſucceſſion and flux of ideas in our minds, I have obſerved in the former part of this eſſay, and every one may take notice of it in himſelf. This I ſuppoſe may deſerve ſome part of our care in the conduct of our underſtandings; and I think it may be of great advantage, if we can by uſe get that power over our minds, as to be able to direct that train of ideas, that ſo, ſince there will no new ones perpetually come into our thoughts

thoughts by a conſtant ſucceſſion, we may be able by choice ſo to direct them, that none may come in view, but ſuch as are pertinent to our preſent enquiry, and in ſuch order as may be moſt uſeful to the diſcovery we are upon; or at leaſt, if ſome foreign and unſought ideas will offer themſelves, that yet we might be able to reject them, and keep them from taking off our minds from it's preſent purſuit, and hinder them from running away with our thoughts quite from the ſubject in hand. This is not, I ſuſpect, ſo eaſy to be done as perhaps may be imagined; and yet, for ought I know, this may be, if not the chief, yet one of the great differences that carry ſome men in their reaſoning ſo far beyond others, where they ſeem to be naturally of equal

equal parts. A proper and effectual remedy for this wandering of thoughts I would be glad to find. He that ſhall propoſe ſuch an one, would do great ſervice to the ſtudious and contemplative part of mankind, and perhaps help unthinking men to become thinking. I muſt acknowledge that hitherto I have diſcovered no other way to keep our thoughts cloſe to their buſineſs, but the endeavouring as much as we can, and by frequent attention and application, getting the habit of attention and application. He that will obſerve children, will find, that even when they endeavour their uttermoſt, they cannot keep their minds from ſtraggling. The way to cure it, I am ſatisfied, is not angry chiding or beating, for that preſently fills their heads with all the

WANDERING.

the ideas that fear, dread, or confuſion can offer to them. To bring back gently their wandering thoughts, by leading them into the path, and going before them in the train they ſhould purſue, without any rebuke, or ſo much as taking notice (where it can be avoided) of their roving, I ſuppoſe would ſooner reconcile and inure them to attention, than all thoſe rougher methods which more diſtract their thought, and hindering the application they would promote, introduce a contrary habit.

SECTION XXX.

DISTINCTION.

Diſtinction and diviſion are (if I miſtake not the import of the words) very different things; the one being the

DISTINCTION.

the perception of a difference that nature has placed in things; the other our making a diviſion where there is yet none; at leaſt, if I may be permitted to conſider them in this ſenſe, I think I may ſay of them, that one of them is the moſt neceſſary and conducive to true knowledge that can be; the other, when too much made uſe of, ſerves only to puzzle and confound the underſtanding. To obſerve every the leaſt difference that is in things, argues a quick and clear ſight, and this keeps the underſtanding ſteady, and right in it's way to knowledge. But though it be uſeful to diſcern every variety that is to be found in nature, yet it is not convenient to conſider every difference that is in things, and divide them into diſtinct claſſes under every ſuch difference.

This

DISTINCTION.

This will run us, if followed, into particulars, (for every individual has ſomething that differences it from another) and we ſhall be able to eſtabliſh no general truths, or elſe at leaſt ſhall be apt to perplex the mind about them. The collection of ſeveral things into ſeveral claſſes, gives the mind more general and larger views; but we muſt take care to unite them only in that; and ſo far as they do agree, for ſo far they may be united under the conſideration. For entity itſelf, that comprehends all things, as general as it is, may afford us clear and rational conceptions. If we would weigh and keep in our minds what it is we are conſidering, that would beſt inſtruct us when we ſhould or ſhould not branch into farther diſtinctions, which are to be taken

taken only from a due contemplation of things; to which there is nothing more oppoſite than the art of verbal diſtinctions, made at pleaſure, in learned and arbitrarily invented terms to be applied at a venture, without comprehending or conveying any diſtinct notions, and ſo altogether fitted to artificial talk, or empty noiſe in diſpute, without any clearing of difficulties, or advance in knowledge. Whatſoever ſubject we examine and would get knowledge in, we ſhould, I think, make as general and as large as it will bear; nor can there be any danger of this, if the idea of it be ſettled and determined: for if that be ſo, we ſhall eaſily diſtinguiſh it from any other idea, though comprehended under the ſame name. For it is to fence againſt the intanglements

glements of equivocal words, and the great art of ſophiſtry which lies in them, that diſtinctions have been multiplied, and their uſe thought neceſſary. But had every diſtinct abſtract idea a diſtinct known name, there would be little need of theſe multiplied ſcholaſtic diſtinctions, though there would be nevertheleſs as much need ſtill of the mind's obſerving the differences that are in things, and diſcriminating them thereby one from another. It is not therefore the right way to knowledge, to hunt after, and fill the head with abundance of artificial and ſcholaſtic diſtinctions, wherewith learned men's writings are often filled; and we ſometimes find what they treat of ſo divided and ſubdivided, that the mind of the moſt attentive reader loſes the

ſight

DISTINCTION.

ſight of it, as it is more than probable the writer himſelf did; for in things crumbled into duſt, it is in vain to affect or pretend order, or expect clearneſs. To avoid confuſion by too few or too many diviſions, is a great ſkill in thinking as well as writing, which is but the copying our thoughts; but what are the boundaries of the mean between the two vitious exceſſes on both hands, I think is hard to ſet down in words: clear and diſtinct ideas is all that I yet know able to regulate it. But as to verbal diſtinctions received and applied to common terms, i.e. equivocal words, they are more properly, I think, the buſineſs of criticiſm and dictionaries than of real knowledge and philoſophy, ſince they, for the moſt part, explain the meaning of words,

and

and give us their ſeveral ſignifications. The dexterous management of terms, and being able to fend and prove with them, I know has and does paſs in the world for a great part of learning; but it is learning diſtinct from knowledge, for knowledge conſiſts only in perceiving the habitudes and relations of ideas one to another, which is done without words; the intervention of a ſound helps nothing to it. And hence we ſee that there is leaſt uſe of diſtinctions where there is moſt knowledge; I mean in mathematics, where men have determined ideas with known names to them; and ſo there being no room for equivocations, there is no need of diſtinctions. In arguing, the opponent uſes as comprehenſive and equivocal terms as he can, to in-

volve his adverſary in the doubtfulneſs of his expreſſions: this is expected, and therefore the anſwerer on his ſide makes it his play to diſtinguiſh as much as he can, and thinks he can never do it too much; nor can he indeed in that way wherein victory may be had without truth and without knowledge. This ſeems to me to be the art of diſputing. Uſe your words as captiouſly as you can in your arguing on one ſide, and apply diſtinctions as much as you can on the other ſide, to every term, to nonplus your opponent; ſo that in this ſort of ſcholarſhip, there being no bounds ſet to diſtinguiſhing, ſome men have thought all acuteneſs to have lain in it; and therefore in all they have read or thought on, their great buſineſs has been to amuſe

themſelves with diſtinctions, and multiply to themſelves diviſions, at leaſt, more than the nature of the thing required. There ſeems to me, as I ſaid, to be no other rule for this, but a due and right conſideration of things as they are in themſelves. He that has ſettled in his mind determined ideas with names affixed to them, will be able both to diſcern their differences one from another, which is really diſtinguiſhing; and where the penury of words affords not terms, anſwering every diſtinct idea, will be able to apply proper diſtinguiſhing terms to the comprehenſive and equivocal names he is forced to make uſe of. This is all the need I know of diſtinguiſhing terms; and in ſuch verbal diſtinctions, each term of the diſtinction joined to

that whoſe ſignification it diſtinguiſhes, is but a diſtinct name for a diſtinct idea. Where they are ſo, and men have clear and diſtinct conceptions that anſwer their verbal diſtinctions, they are right, and are pertinent as far as they ſerve to clear any thing in the ſubject under conſideration. And this is that which ſeems to me the proper and only meaſure of diſtinctions and diviſions; which, he that will conduct his underſtanding right, muſt not look for in the acuteneſs of invention, nor the authority of writers, but will find only in the conſideration of things themſelves whether they are led into it by their own meditations, or the information of books.

An aptneſs to jumble things together,

DISTINCTION.

gether, wherein can be found any likeneſs, is a fault in the underſtanding on the other ſide, which will not fail to miſlead it, and by thus lumping of things, hinder the mind from diſtinct and accurate conceptions of them.

SECTION XXXI.

SIMILES.

To which let me here add another near of kin to this, at leaſt in name, and that is, letting the mind upon the ſuggeſtion of any new notion, run immediately after ſimiles to make it the clearer to itſelf; which, though it may be a good way and uſeful in the explaining our thoughts to others, yet it is by no means a right method to ſettle true notions of any thing in ourſelves,

SIMILES.

becauſe ſimilies always fail in ſome part, and come ſhort of that exactneſs which our conceptions ſhould have to things, if we would think aright. This indeed makes men plauſible talkers; for thoſe are always moſt acceptable in diſcourſe, who have the way to let their thoughts into other men's minds with the greateſt eaſe and facility, whether thoſe thoughts are well formed and correſpond with things, matters not; few men care to be inſtructed but at an eaſy rate. They who in their diſcourſe ſtrike the fancy, and take the hearers' conceptions along with them as faſt as their words flow, are the applauded talkers, and go for the only men of clear thoughts. Nothing contributes ſo much to this as ſimiles, whereby men think they themſelves underſtand better, be-

becauſe they are better underſtood. But it is one thing to think right, and another thing to know the right way to lay our thoughts before others with advantage and clearneſs, be they right or wrong. Well choſen ſimiles, metaphors and allegories, with method and order, do this the beſt of any thing, becauſe being taken from objects already known, and familiar to the underſtanding, they are conceived as faſt as ſpoken; and the correſpondence being concluded, the thing they are brought to explain and elucidate is thought to be underſtood too. Thus fancy paſſes for knowledge, and what is prettily ſaid is miſtaken for ſolid. I ſay not this to decry metaphor, or with deſign to take away that ornament of ſpeech; my buſineſs here is not

SIMILES.

with rhetoricians and orators, but with philoſophers and lovers of truth; to whom I would beg leave to give this one rule whereby to try whether, in the application of their thoughts to any thing for the improvement of their knowledge, they do in truth comprehend the matter before them really ſuch as it is in itſelf. The way to diſcover this is to obſerve, whether in the laying it before themſelves or others, they make uſe only of borrowed repreſentations and ideas foreign to the things which are applied to it by way of accommodation, as bearing ſome proportion or imagined likeneſs to the ſubject under conſideration. Figured and metaphorical expreſſions do well to illuſtrate more abſtruſe and unfamiliar ideas which the mind is not yet thoroughly accuſtomed

cuſtomed to; but then they muſt be made uſe of to illuſtrate ideas that we already have, not to paint to us thoſe which we yet have not. Such borrowed and alluſive ideas may follow real and ſolid truth, to ſet it off when found, but muſt by no means be ſet in it's place, and taken for it. If all our ſearch has yet reached no farther than ſimile and metaphor, we may aſſure ourſelves we rather fancy than know, and are not yet penetrated into the inſide and reality of the thing, be it what it will, but content ourſelves with what our imaginations, not things themſelves, furniſh us with.

SECTION XXXII.

ASSENT.

In the whole conduct of the underſtanding, there is nothing of more moment than to know when and where, and how far to give aſſent, and poſſibly there is nothing harder. It is very eaſily ſaid, and no body queſtions it, that giving and withholding our aſſent, and the degrees of it, ſhould be regulated by the evidence which things carry with them; and yet we ſee men are not the better for this rule; ſome firmly embrace doctrines upon ſlight grounds, ſome upon no grounds, and ſome contrary to appearance. Some admit of certainty, and are not to be moved in what they hold: others waver in every thing, and there want not thoſe that reject all as

as uncertain. What then ſhall a novice, an enquirer, a ſtranger do in the caſe? I anſwer, uſe his eyes. There is a correſpondence in things, and agreement and diſagreement in ideas, diſcernible in very different degrees, and there are eyes in men to ſee them if they pleaſe, only their eyes may be dimmed or dazzled, and the diſcerning ſight in them impaired or loſt. Intereſt and paſſion dazzle, the cuſtom of arguing on any ſide, even againſt our perſuaſions, dims the underſtanding, and makes it by degrees loſe the faculty of diſcerning clearly between truth and falſhood, and ſo of adhering to the right ſide. It is not ſafe to play with error, and dreſs it up to ourſelves or others in the ſhape of truth. The mind by degrees loſes it's natural reliſh of real

real ſolid truth, is reconciled inſenſibly to any thing that can but be dreſſed up into any faint appearance of it; and if the fancy be allowed the place of judgment at firſt in ſport, it afterwards comes by uſe to uſurp it, and what is recommended by this flatterer (that ſtudies but to pleaſe) is received for good. There are ſo many ways of fallacy, ſuch arts of giving colours, appearances and reſemblances by this court dreſſer, the fancy, that he who is not wary to admit nothing but truth itſelf, very careful not to make his mind ſubſervient to any thing elſe, cannot but be caught. He that has a mind to believe, has half aſſented already; and he that by often arguing againſt his own ſenſe, impoſes falſhoods on others, is not far from believing himſelf.

himſelf. This takes away the great diſtance there is betwixt truth and falſhood; it brings them almoſt together, and makes it no great odds in things that approach ſo near, which you take; and when things are brought to that paſs, paſſion or intereſt, &c. eaſily, and without being perceived, determine which ſhall be the right.

SECTION XXXIII.

INDIFFERENCY.

I have ſaid above that we ſhould keep a perfect indifferency for all opinions, not wiſh any of them true, or try to make them appear ſo; but being indifferent, receive and embrace them according as evidence, and that alone gives the atteſtation of truth. They that do thus,

thus, i. e. keep their minds indifferent to opinions, to be determined only by evidence, will always find the underſtanding has perception enough to diſtinguiſh between evidence or no evidence, betwixt plain and doubtful; and if they neither give nor refuſe their aſſent but by that meaſure, they will be ſafe in the opinions they have. Which being perhaps but few, this caution will have alſo this good in it, that it will put them upon conſidering, and teach them the neceſſity of examining more than they do; without which the mind is but a receptacle of inconſiſtences, not the ſtorehouſe of truths. They that do not keep up this indifferency in themſelves for all but truth, not ſuppoſed, but evidenced in themſelves, put coloured ſpectacles before their eyes,

eyes, and look on things through falſe glaſſes, and then think themſelves excuſed in following the falſe appearances, which they themſelves put upon them. I do not expect that by this way the aſſent ſhould in every one be proportioned to the grounds and clearneſs wherewith every truth is capable to be made out, or that men ſhould be perfectly kept from error: that is more than human nature can by any means be advanced to; I aim at no ſuch unattainable privilege; I am only ſpeaking of what they ſhould do who would deal fairly with their own minds, and make a right uſe of their faculties in the purſuit of truth; we fail them a great deal more than they fail us. It is miſmanagement more than want of abilities that men have reaſon to com-

complain of, and which they actually do complain of in thoſe that differ from them. He that by an indifferency for all but truth, ſuffers not his aſſent to go faſter than his evidence, nor beyond it, will learn to examine, and examine fairly inſtead of preſuming, and no body will be at a loſs or in danger for want of embracing thoſe truths which are neceſſary in his ſtation and circumſtances. In any other way but this, all the world are born to orthodoxy: they imbibe at firſt the allowed opinions of their country and party, and ſo never queſtioning their truth, not one of an hundred ever examines. They are applauded for preſuming they are in the right. He that conſiders, is a foe to orthodoxy, becauſe poſſibly he may deviate from ſome of the re-

received doctrines there. And thus men without any induſtry or acquiſition of their own, inherit local truths (for it is not the ſame every where) and are enured to aſſent without evidence. This influences farther than is thought; for what one of an hundred of the zealous bigots in all parties, ever examined the tenets he is ſo ſtiff in, or ever thought it his buſineſs or duty ſo to do? It is ſuſpected of lukewarmneſs to ſuppoſe it neceſſary, and a tendency to apoſtacy to go about it. And if a man can bring his mind once to be poſitive and fierce for poſitions, whoſe evidence he has never once examined, and that in matters of greateſt concernment to him, what ſhall keep him from this ſhort and eaſy way of being in the right in caſes of leſs moment? Thus

we are taught to clothe our minds as we do our bodies, after the fashion in vogue, and it is accounted fantasticalness, or something worse not to do so. This custom (which who dares oppose) makes the short-sighted bigots, and the warier sceptics, as far as it prevails. And those that break from it are in danger of heresy; for taking the whole world, how much of it doth truth and orthodoxy possess together? Though it is by the last alone (which has the good luck to be every where) that error and heresy are judged of; for argument and evidence signify nothing in the case, and excuse no where, but are sure to be borne down in all societies by the infallible orthodoxy of the place. Whether this be the way to truth and right assent, let the opinions that take

take place and preſcribe in the ſeveral habitable parts of the earth, declare. I never ſaw any reaſon yet why truth might not be truſted to it's own evidence: I am ſure if that be not able to ſupport it, there is no fence againſt error, and then truth and falſhood are but names that ſtand for the ſame things. Evidence therefore is that by which alone every man is (and ſhould be) taught to regulate his aſſent, who is then and then only in the right way when he follows it.

Men deficient in knowledge, are uſually in one of theſe three ſtates, either wholly ignorant, or as doubting of ſome propoſition they have either embraced formerly, or at preſent are inclined to: or, laſtly, they do with aſſurance hold and

profeſs without ever having examined, and been convinced by well grounded arguments.

The firſt of theſe are in the beſt ſtate of the three, by having their minds yet in their perfect freedom and indifferency, the likelier to purſue truth the better, having no bias yet clapped on to miſlead them.

SECTION XXXIV.

IGNORANCE WITH INDIFFERENCY.

For ignorance with an indifferency for truth is nearer to it, than opinion with ungrounded inclination, which is the great ſource of error; and they are more in danger to go out of the way, who are marching under the conduct of a guide, that it is an hundred to one will

IGNORANCE WITH INDIFFERENCY.

will miſlead them, than he that has not yet taken a ſtep, and is likelier to be prevailed on to enquire after the right way. The laſt of the three ſorts are in the worſt condition of all; for if a man can be perſuaded and fully aſſured of any thing for a truth, without having examined what is there that he may not embrace for truth; and if he has given himſelf up to believe a lie, what means is there left to recover one who can be aſſured without examining? To the other two, this I crave leave to ſay, that as he that is ignorant is in the beſt ſtate of the two, ſo he ſhould purſue truth in a method ſuitable to that ſtate, i. e. by enquiring directly into the nature of the thing itſelf, without minding the opinions of others, or troubling himſelf with their

queſtions or diſputes about it, but to ſee what he himſelf can, ſincerely ſearching after truth, find out. He that proceeds upon other principles in his enquiry into any ſciences, though he be reſolved to examine them and judge of them freely, does yet at leaſt put himſelf on that ſide, and poſt himſelf in a party which he will not quit till he be beaten out; by which the mind is inſenſibly engaged to make what defence it can, and ſo is unawares biaſſed. I do not ſay but a man ſhould embrace ſome opinion when he has examined, elſe he examines to no purpoſe; but the ſureſt and ſafeſt way is to have no opinion at all till he has examined, and that without any the leaſt regard to the opinions or ſyſtems of other men about it. For example, were it my buſineſs to underſtand

derſtand phyſic, would not the ſafer and readier way be to conſult nature herſelf, and inform myſelf in the hiſtory of diſeaſes and their cures, than eſpouſing the principles of the dogmatiſts, methodiſts or chymiſts, engage in all the diſputes concerning either of thoſe ſyſtems, and ſuppoſe it to be true, till I have tried what they can ſay to beat me out of it. Or, ſuppoſing that *Hippocrates*, or any other book, infallibly contains the whole art of phyſic, would not the direct way be to ſtudy, read and conſider that book, weigh and compare the parts of it to find the truth, rather than eſpouſe the doctrines of any party? who, though they acknowledge his authority, have already interpreted and wiredrawn all his text to their own ſenſe; the tincture whereof

when I have imbibed, I am more in danger to miſunderſtand his true meaning, than if I had come to him with a mind unprepoſſeſſed by doctors and commentators of my ſect, whoſe reaſonings, interpretation and language, which I have been uſed to, will of courſe make all chime that way, and make another, and perhaps the genuine meaning of the author ſeem harſh, ſtrained and uncouth to me. For words having naturally none of their own, carry that ſignification to the hearer, that he is uſed to put upon them, whatever be the ſenſe of him that uſes them. This, I think, is viſibly ſo; and if it be, he that begins to have any doubt of any of his tenets, which he received without examination, ought, as much as he can, to put himſelf wholly

IGNORANCE WITH INDIFFERENCY.

wholly into this ſtate of ignorance in reference to that queſtion, and throwing wholly by all his former notions, and the opinions of others, examine, with a perfect indifferency, the queſtion in it's ſource, without any inclination to either ſide, or any regard to his or others' unexamined opinions. This I own is no eaſy thing to do, but I am not enquiring the eaſy way to opinion, but the right way to truth; which they muſt follow who will deal fairly with their own underſtandings and their own ſouls.

SECTION XXXV.

QUESTION.

The indifferency that I here propoſe, will alſo enable them to ſtate the queſtion right, which they are in

QUESTION.

in doubt about, without which they can never come to a fair and clear deciſion of it.

SECTION XXXVI.

PERSEVERANCE.

Another fruit from this indifferency, and the conſidering things in themſelves, abſtract from our own opinions and other men's notions, and diſcourſes on them, will be that each man will purſue his thoughts in that method which will be moſt agreeable to the nature of the thing, and to his apprehenſion of what it ſuggeſts to him; in which he ought to proceed with regularity and conſtancy, until he come to a wellgrounded reſolution wherein he may acquieſce. If it be objected that this will require every man to

be a ſcholar, and quit all his other buſineſs, and betake himſelf wholly to ſtudy. I anſwer, I propoſe no more to any one than he has time for. Some men's ſtate and condition requires no great extent of knowledge; the neceſſary proviſion for life ſwallows the greateſt part of their time. But one man's want of leiſure is no excuſe for the oſcitancy and ignorance of thoſe who have time to ſpare; and every one has enough to get as much knowledge as is required and expected of him, and he that does not that, is in love with ignorance, and is accountable for it.

SECTION XXXVII.

PRESUMPTION.

The variety of diſtempers in men's minds, is as great as of thoſe in their bodies; ſome are epidemic, few eſcape them, and every one too, if he would look into himſelf, would find ſome defect of his particular genius. There is ſcarce any one without ſome idioſyncraſy that he ſuffers by. This man preſumes upon his parts, that they will not fail him at time of need, and ſo thinks it ſuperfluous labour to make any proviſion before hand. His underſtanding is to him like *Fortunatus's* purſe, which is always to furniſh him without ever putting any thing into it before hand; and ſo he ſits ſtill ſatisfied, without endeavouring to ſtore his underſtanding

ing with knowledge. It is the ſpontaneous product of the country, and what need of labour in tillage? Such men may ſpread their native riches before the ignorant; but they were beſt not come to ſtreſs and trial with the ſkilful. We are born ignorant of every thing. The ſuperficies of things that ſurround them, makes impreſſions on the negligent, but no body penetrates into the inſide without labour, attention and induſtry. Stones and timber grow of themſelves, but yet there is no uniform pile with ſymmetry and convenience to lodge in without toil and pains. God has made the intellectual world harmonious and beautiful without us; but it will never come into our heads all at once, we muſt bring it home piecemeal, and there ſet it up by

by our own induſtry, or elſe we ſhall have nothing but darkneſs and a chaos within, whatever order and light there be in things without us.

SECTION XXXVIII.

DESPONDENCY.

On the other ſide, there are others that depreſs their own minds, deſpond at the firſt difficulty, and conclude that the getting an inſight in any of the ſciences, or making any progreſs in knowledge, farther than ſerves their ordinary buſineſs, is above their capacities. Theſe ſit ſtill, becauſe they think they have not legs to go as the others I laſt mentioned do, becauſe they think they have wings to fly, and can ſoar on high when they pleaſe. To theſe latter one may for anſwer apply

ply the proverb, *Uſe legs and have legs*. No body knows what ſtrength of parts he has till he has tried them. And of the underſtanding one may moſt truly ſay, that it's force is greater generally than it thinks, till it is put to it. *Viresque acquirit eundo.*

And therefore the proper remedy here is but to ſet the mind to work, and apply the thoughts vigorouſly to the buſineſs; for it holds in the ſtruggles of the mind, as in thoſe of war, *Dum putant ſe vincere, vicêre*; a perſuaſion that we ſhall overcome any difficulties that we meet with in the ſciences, ſeldom fails to carry us through them. No body knows the ſtrength of his mind, and the force of ſteady and regular application till he has tried. This is certain,

tain, he that ſets out upon weak legs, will not only go farther, but grow ſtronger too than one who with a vigorous conſtitution and firm limbs, only ſits ſtill.

Something of kin to this men may obſerve in themſelves, when the mind frights itſelf (as it often does) with any thing reflected on in groſs, and tranſiently viewed confuſedly and at a diſtance. Things thus offered to the mind, carry the ſhew of nothing but difficulty in them, and are thought to be wrapped up in impenetrable obſcurity. But the truth is, theſe are nothing but ſpectres that the underſtanding raiſes to itſelf to flatter it's own lazineſs. It ſees nothing diſtinctly in things remote, and in a huddle, and therefore concludes too faintly, that there

DESPONDENCY.

there is nothing more clear to be diſcovered in them. It is but to approach nearer, and that miſt of our own raiſing that inveloped them, will remove; and thoſe that in that miſt appeared hideous giants not to be grappled with, will be found to be of the ordinary and natural ſize and ſhape. Things that in a remote and confuſed view ſeem very obſcure, muſt be approached by gentle and regular ſteps; and what is moſt viſible, eaſy and obvious in them firſt conſidered. Reduce them into their diſtinct parts; and then in their due order bring all that ſhould be known concerning every one of thoſe parts, into plain and ſimple queſtions; and then what was thought obſcure, perplexed, and too hard for our weak parts, will lay itſelf open to

the underſtanding in a fair view, and let the mind into that which before it was awed with, and kept at a diſtance from, as wholly myſterious. I appeal to my reader's experience, whether this has never happened to him, eſpecially when buſy on one thing, he has occaſionally reflected on another. I aſk him, whether he has never thus been ſcared with a ſudden opinion of mighty difficulties, which yet have vaniſhed, when he has ſeriouſly and methodically applied himſelf to the conſideration of this ſeeming terrible ſubject; and there has been no other matter of aſtoniſhment left, but that he amuſed himſelf with ſo diſcouraging a proſpect of his own raiſing about a matter, which in the handling was found to have nothing in it more ſtrange nor intricate

tricate than ſeveral other things which he had long ſince, and with eaſe maſtered? This experience would teach us how to deal with ſuch bugbears another time, which ſhould rather ſerve to excite our vigor than enervate our induſtry. The ſureſt way for a learner in this as in all other caſes, is not to advance by jumps and large ſtrides; let that which he ſets himſelf to learn next, be indeed the next, i. e. as nearly conjoined with what he knows already as is poſſible; let it be diſtinct but not remote from it: let it be new and what he did not know before, that the underſtanding may advance; but let it be as little at once as may be, that it's advances may be clear and ſure. All the ground that it gets this way it will hold. This diſtinct gradual

DESPONDENCY.

growth in knowledge is firm and ſure, it carries it's own light with it in every ſtep of it's progreſſion in an eaſy and orderly train, than which there is nothing of more uſe to the underſtanding. And though this perhaps may ſeem a very ſlow and lingering way to knowledge, yet I dare confidently affirm, that whoever will try it in himſelf, or any one he will teach, ſhall find the advances greater in this method, than they would in the ſame ſpace of time have been in any other he could have taken. The greateſt part of true knowledge lies in a diſtinct perception of things in themſelves diſtinct. And ſome men give more clear light and knowledge by the bare diſtinct ſtating of a queſtion, than others by taking of it in groſs whole hours together. In this,

this, they who ſo ſtate a queſtion, do no more but ſeparate and diſentangle the parts of it one from another, and lay them, when ſo diſentangled, in their due order. This often, without any more ado, reſolves the doubt, and ſhews the mind where the truth lies. The agreement or diſagreement of the ideas in queſtion, when they are once ſeparated and diſtinctly conſidered, is, in many caſes, preſently perceived, and thereby clear and laſting knowledge gained; whereas things in groſs taken up together, and ſo lying together in confuſion, can produce in the mind but a confuſed, which in effect, is no knowledge; or at leaſt when it comes to be examined and made uſe of, will prove little better than none. I therefore take the liberty to repeat

DESPONDENCY.

here again what I have ſaid elſewhere, that in learning any thing, as little ſhould be propoſed to the mind at once as is poſſible; and that being underſtood and fully maſtered, to proceed to the next adjoining part yet unknown, ſimple, unperplexed propoſition belonging to the matter in hand, and tending to the clearing what is principally deſigned.

SECTION XXXIX.

ANALOGY.

Analogy is of great uſe to the mind in many caſes, eſpecially in natural philoſophy, and that part of it chiefly which conſiſts in happy and ſucceſsful experiments. But here we muſt take care that we keep ourſelves within that wherein the analogy

analogy conſiſts. For example, the acid oil of vitriol is found to be good in ſuch a caſe, therefore the ſpirit of nitre or vinegar may be uſed in the like caſe. If the good effect of it be owing wholly to the acidity of it, the trial may be juſtified; but if there be ſomething elſe beſides the acidity in the oil of vitriol, which produces the good we deſire in the caſe, we miſtake that for analogy, which is not, and ſuffer our underſtanding to be miſguided by a wrong ſuppoſition of analogy where there is none.

SECTION XL.

ASSOCIATION.

Though I have in the ſecond book of my eſſay concerning human underſtanding, treated of the aſſo-

ciation of ideas; yet having done it there hiſtorically, as giving a view of the underſtanding in this as well as it's ſeveral other ways of operating, rather than deſigning there to enquire into the remedies, that ought to be applied to it. It will, under this latter conſideration, afford other matter of thought to thoſe who have a mind to inſtruct themſelves thoroughly in the right way of conducting their underſtandings; and that the rather, becauſe this, if I miſtake not, is as frequent a cauſe of miſtake and error in us, as perhaps any thing elſe that can be named; and is a diſeaſe of the mind as hard to be cured as any; it being a very hard thing to convince any one that things are not ſo, and naturally ſo, as they conſtantly appear to him.

By

ASSOCIATION.

By this one eaſy and unheeded miſcarriage of the underſtanding, ſandy and looſe foundations become infallible principles, and will not ſuffer themſelves to be touched or queſtioned: ſuch unnatural connections become by cuſtom as natural to the mind, as ſun and light. Fire and warmth go together, and ſo ſeem to carry with them as natural an evidence as ſelfevident truths themſelves. And where then ſhall one with hopes of ſucceſs begin the cure? Many men firmly embrace falſhood for truth; not only becauſe they never thought otherwiſe, but alſo becauſe thus blinded as they have been from the beginning, they never could think otherwiſe; at leaſt without a vigor of mind able to conteſt the empire of habit, and look into it's own principles;

a freedom which few men have the notion of in themſelves, and fewer are allowed the practice of by others; it being the great art and buſineſs of the teachers and guides in moſt ſects, to ſuppreſs, as much as they can, this fundamental duty which every man owes himſelf, and is the firſt ſteady ſtep towards right and truth in the whole train of his actions and opinions. This would give one reaſon to ſuſpect, that ſuch teachers are conſcious to themſelves of the falſhood or weakneſs of the tenets they profeſs, ſince they will not ſuffer the grounds whereon they are built to be examined; whereas thoſe who ſeek truth only, and deſire to own and propagate nothing elſe, freely expoſe their principles to the teſt, are pleaſed to have them examined, give men leave to reject them

them if they can; and if there be any thing weak and unſound in them, are willing to have it detected, that they themſelves, as well as others, may not lay any ſtreſs upon any received propoſition beyond what the evidence of it's truth will warrant and allow.

There is, I know, a great fault among all ſorts of people of principling their children and ſcholars; which at laſt, when looked into, amounts to no more, but making them imbibe their teachers' notions and tenets, by an implicit faith, and firmly to adhere to them whether true or falſe. What colours may be given to this, or of what uſe it may be when practiſed upon the vulgar, deſtined to labour, and given up to the ſervice of their bellies,

lies, I will not here enquire. But as to the ingenuous part of mankind, whoſe condition allows them leiſure, and letters, and enquiry after truth; I can ſee no other right way of principling them, but to take heed, as much as may be, that in their tender years, ideas that have no natural coheſion come not to be united in their heads, and that this rule be often inculcated to them to be their guide in the whole courſe of their lives and ſtudies, viz. that they never ſuffer any ideas to be joined in their underſtandings, in any other or ſtronger combination than what their own nature and correſpondence give them; and that they often examine thoſe that they find linked together in their minds, whether this aſſociation of ideas be from the viſible agreement that is

in

ASSOCIATION.

in the ideas themſelves, or from the habitual and prevailing cuſtom of the mind joining them thus together in thinking.

This is for caution againſt this evil, before it be thoroughly riveted by cuſtom in the underſtanding; but he that would cure it when habit has eſtabliſhed it, muſt nicely obſerve the very quick, and almoſt imperceptible motions of the mind in it's habitual actions. What I have ſaid in another place about the change of the ideas of ſenſe into thoſe of judgment, may be proof of this. Let any one not ſkilled in painting, be told when he ſees bottles and tobacco pipes, and other things ſo painted, as they are in ſome places ſhewn, that he does not ſee protuberances, and you will not

not convince him but by the touch: he will not believe that by an inſtantaneous legerdemain of his own thoughts, one idea is ſubſtituted for the other. How frequent inſtances may one meet with of this in the arguings of the learned, who not ſeldom in two ideas that they have been accuſtomed to join in their minds, ſubſtitute one for the other; and, I am apt to think, often without perceiving it themſelves. This, whilſt they are under the deceit of it, makes them incapable of conviction, and they applaud themſelves as zealous champions for truth, when indeed they are contending for error. And the confuſion of two different ideas, which a cuſtomary connection of them in their minds hath made to them, almoſt one, fills their heads with falſe views,

and their reaſonings with falſe conſequences.

SECTION XLI.

FALLACIES.

Right underſtanding conſiſts in the diſcovery and adherence to truth, and that in the perception of the viſible or probable agreement or diſagreement of ideas, as they are affirmed and denied one of another. From whence it is evident, that the right uſe and conduct of the underſtanding, whoſe buſineſs is purely truth and nothing elſe, is, that the mind ſhould be kept in a perfect indifferency, not inclining to either ſide, any farther than evidence ſettles it by knowledge, or the overbalance of probability gives it the turn of aſſent and belief; but yet

yet it is very hard to meet with any diſcourſe, wherein one may not perceive the author not only maintain (for that is reaſonable and fit) but inclined and biaſſed to one ſide of the queſtion, with marks of a deſire that that ſhould be true. If it be aſked me, how authors who have ſuch a bias and lean to it may be diſcovered? I anſwer, by obſerving how in their writings or arguings, they are often led by their inclinations to change the ideas of the queſtion, either by changing the terms, or by adding and joining others to them, whereby the ideas under conſideration are ſo varied, as to be more ſerviceable to their purpoſe, and to be thereby brought to an eaſier and nearer agreement, or more viſible and remoter diſagreement one with another. This is

is plain and direct ſophiſtry; but I am far from thinking, that wherever it is found it is made uſe of with deſign to deceive and miſlead the readers. It is viſible that men's prejudices and inclinations by this way impoſe often upon themſelves; and their affection for truth, under their prepoſſeſſion in favour of one ſide, is the very thing that leads them from it. Inclination ſuggeſts and ſlides into their diſcourſe favourable terms, which introduce favourable ideas, till at laſt by this means, that is concluded clear and evident, thus dreſſed up, which taken in it's native ſtate, by making uſe of none but the preciſe determined ideas, would find no admittance at all. The putting theſe gloſſes on what they affirm, theſe, as they are thought, handſome, eaſy, and graceful explications of

what they are diſcourſing on, is ſo much the character of what is called and eſteemed writing well, that it is very hard to think that authors will ever be perſuaded to leave what ſerves ſo well to propagate their opinions, and procure themſelves credit in the world, for a more jejune and dry way of writing, by keeping to the ſame terms preciſely annexed to the ſame ideas, a ſour and blunt ſtiffneſs tolerable in mathematicians only, who force their way, and make truth prevail by irreſiſtible demonſtration.

But yet if authors cannot be prevailed with to quit the looſer, though more inſinuating ways of writing, if they will not think fit to keep cloſe to truth and inſtruction by unvaried terms, and plain unſophiſticated arguments, yet it concerns

cerns readers not to be impoſed on by fallacies, and the prevailing ways of inſinuation. To do this, the ſureſt and moſt effectual remedy is, to fix in the mind the clear and diſtinct ideas of the queſtion ſtripped of words; and ſo likewiſe in the train of argumentation, to take up the author's ideas, neglecting his words, obſerving how they connect or ſeparate thoſe in the queſtion. He that does this will be able to caſt off all that is ſuperfluous; he will ſee what is pertinent, what coherent, what is direct to, what ſlides by the queſtion. This will readily ſhew him all the foreign ideas in the diſcourſe, and where they were brought in; and though they perhaps dazzled the writer, yet he will perceive that they give no light nor ſtrength to his reaſonings.

FALLACIES.

This, though it be the ſhorteſt and eaſieſt way of reading books with profit, and keeping one's ſelf from being miſled by great names or plauſible diſcourſes; yet it being hard and tedious to thoſe who have not accuſtomed themſelves to it; it is not to be expected that every one (amongſt thoſe few who really purſue truth) ſhould this way guard his underſtanding from being impoſed on by the wilful, or at leaſt undeſigned ſophiſtry, which creeps into moſt of the books of argument. They that write againſt their conviction, or that next to them, are reſolved to maintain the tenets of a party they are engaged in, cannot be ſuppoſed to reject any arms that may help to defend their cauſe, and therefore ſuch ſhould be read with the greateſt caution. And they who write for opinions they are

are ſincerely perſuaded of, and believe to be true, think they may ſo far allow themſelves to indulge their laudable affection to truth, as to permit their eſteem of it, to give it the beſt colours, and ſet it off with the beſt expreſſions and dreſs they can, thereby to gain it the eaſieſt entrance into the minds of their readers, and fix it deepeſt there.

One of thoſe being the ſtate of mind we may juſtly ſuppoſe moſt writers to be in, it is fit their readers, who apply to them for inſtruction, ſhould not lay by that caution which becomes a ſincere purſuit of truth, and ſhould make them always watchful againſt whatever might conceal or miſrepreſent it. If they have not the ſkill of repreſenting to themſelves the author's

ſenſe by pure ideas ſeparated from ſounds, and thereby diveſted of the falſe lights and deceitful ornaments of ſpeech; this yet they ſhould do, they ſhould keep the preciſe queſtion ſteadily in their minds, carry it along with them through the whole diſcourſe, and ſuffer not the leaſt alteration in the terms, either by addition, ſubtraction, or ſubſtituting any other. This every one can do who has a mind to it; and he that has not a mind to it, it is plain makes his underſtanding only the warehouſe of other men's lumber; I mean falſe and unconcluding reaſonings, rather than a repoſitory of truth for his own uſe, which will prove ſubſtantial, and ſtand him in ſtead when he has occaſion for it. And whether ſuch an one deals fairly by his own mind, and conducts

ducts his own understanding right, I leave to his own understanding to judge.

SECTION XLII.

FUNDAMENTAL VERITIES.

The mind of man being very narrow, and so slow in making acquaintance with things, and taking in new truths, that no one man is capable, in a much longer life than our's, to know all truths; it becomes our prudence in our search after knowledge, to employ our thoughts about fundamental and material questions, carefully avoiding those that are trifling, and not suffering ourselves to be diverted from our main even purpose, by those that are merely incidental. How much of many young men's time is thrown

away in purely logical enquiries, I need not mention. This is no better than if a man who was to be a painter, ſhould ſpend all his time in examining the threads of the ſeveral cloths he is to paint upon, and counting the hairs of each pencil and bruſh he intends to uſe in the laying on of his colours. Nay, it is much worſe than for a young painter to ſpend his apprenticeſhip in ſuch uſeleſs niceties; for he at the end of all his pains to no purpoſe, finds that it is not painting, nor any help to it, and ſo is really to no purpoſe. Whereas men deſigned for ſcholars have often their heads ſo filled and warmed with diſputes on logical queſtions, that they take thoſe airy uſeleſs notions for real and ſubſtantial knowledge, and think their underſtandings ſo well

well furniſhed with ſcience, that they need not look any farther into the nature of things, or deſcend to the mechanical drudgery of experiment and enquiry. This is ſo obvious a miſmanagement of the underſtanding, and that in the profeſſed way to knowledge, that it could not be paſſed by; to which might be joined abundance of queſtions, and the way of handling them in the ſchools. What faults in particular of this kind, every man is, or may be guilty of, would be infinite to enumerate; it ſuffices to have ſhewn that ſuperficial and ſlight diſcoveries and obſervations that contain nothing of moment in themſelves, nor ſerve as clues to lead us into farther knowledge, ſhould be lightly paſſed by, and never thought worth our ſearching after.

There

FUNDAMENTAL VERITIES.

There are fundamental truths that lie at the bottom, the baſis upon which a great many others reſt, and in which they have their conſiſtency. Theſe are teeming truths, rich in ſtore, with which they furniſh the mind, and, like the lights of heaven, are not only beautiful and entertaining in themſelves, but give light and evidence to other things, that without them could not be ſeen or known. Such is that admirable diſcovery of Mr. *Newton*, that all bodies gravitate to one another, which may be counted as the baſis of natural philoſophy; which of what uſe it is to the underſtanding of the great frame of our ſolar ſyſtem, he has to the aſtoniſhment of the learned world ſhewn, and how much farther it would guide us in other things, if rightly purſued

FUNDAMENTAL VERITIES.

ſued is not yet known. Our Saviour's great rule, that *we ſhould love our neighbour as ourſelves*, is ſuch a fundamental truth for the regulating human ſociety; that, I think, by that alone, one might without difficulty, determine all the caſes and doubts in ſocial morality. Theſe, and ſuch as theſe, are the truths we ſhould endeavour to find out, and ſtore our minds with. Which leads me to another thing in the conduct of the underſtanding that is no leſs neceſſary, viz.

SECTION XLIII.

BOTTOMING.

To accuſtom ourſelves in any queſtion propoſed to examine and find out upon what it bottoms. Moſt of the difficulties that come in

in our way, when well conſidered and traced, lead us to ſome propoſition, which known to be true, clears the doubt, and gives an eaſy ſolution of the queſtion, whilſt topical and ſuperficial arguments, of which there is ſtore to be found on both ſides, filling the head with variety of thoughts, and the mouth with copious diſcourſe, ſerve only to amuſe the underſtanding, and entertain company without coming to the bottom of the queſtion, the only place of reſt and ſtability for an inquiſitive mind, whoſe tendency is only to truth and knowledge.

For example, if it be demanded, whether the grand ſeignior can lawfully take what he will from any of his people? This queſtion cannot be reſolved without coming to

BOTTOMING.

to a certainty, whether all men are naturally equal; for upon that it turns, and that truth well ſettled in the underſtanding, and carried in the mind through the various debates concerning the various rights of men in ſociety, will go a great way in putting an end to them, and ſhewing on which ſide the truth is.

SECTION XLIV.

TRANSFERRING OF THOUGHTS.

There is ſcarce any thing more for the improvement of knowledge, for the eaſe of life, and the diſpatch of buſineſs, than for a man to be able to diſpoſe of his own thoughts; and there is ſcarce any thing harder in the whole conduct of the underſtanding, than to get a full maſtery over

over it. The mind, in a waking man, has always ſome object that it applies itſelf to; which, when we are lazy or unconcerned, we can eaſily change, and at pleaſure tranſfer our thoughts to another, and from thence to a third, which has no relation to either of the former. Hence men forwardly conclude, and frequently ſay, nothing is ſo free as thought, and it were well it were ſo; but the contrary will be found true in ſeveral inſtances; and there are many caſes wherein there is nothing more reſty and ungovernable than our thoughts: they will not be directed what objects to purſue, nor be taken off from thoſe they have once fixed on, but run away with a man in purſuit of thoſe ideas they have in view, let him do what he can.

TRANSFERRING OF THOUGHTS.

I will not here mention again what I have above taken notice of, how hard it is to get the mind narrowed by a cuſtom of thirty or forty years ſtanding to a ſcanty collection of obvious and common ideas, to enlarge itſelf to a more copious ſtock, and grow into an acquaintance with thoſe that would afford more abundant matter of uſeful contemplation; it is not of this I am here ſpeaking. The inconvenience I would here repreſent and find a remedy for, is the difficulty there is ſometimes to transfer our minds from one ſubject to another, in caſes where the ideas are equally familiar to us.

Matters that are recommended to our thoughts by any of our paſſions, take poſſeſſion of our minds with a kind

kind of authority, and will not be kept out or diſlodged, but as if the paſſion that rules, were, for the time, the ſheriff of the place, and came with all the poſſe, the underſtanding is ſeized and taken with the object it introduces, as if it had a legal right to be alone conſidered there. There is ſcarce any body, I think, of ſo calm a temper who hath not ſometime found this tyranny on his underſtanding, and ſuffered under the inconvenience of it. Who is there almoſt whoſe mind, at ſome time or other, love or anger, fear or grief, has not ſo faſtened to ſome clog, that it could not turn itſelf to any other object? I call it a clog, for it hangs upon the mind ſo as to hinder it's vigour and activity in the purſuit of other contemplations, and advances itſelf

little

little or not at all in the knowledge of the thing which it ſo cloſely hugs and conſtantly pores on. Men thus poſſeſſed, are ſometimes as if they were ſo in the worſt ſenſe, and lay under the power of an inchantment. They ſee not what paſſes before their eyes; hear not the audible diſcourſe of the company; and when by any ſtrong application to them they are rouſed a little, they are like men brought to themſelves from ſome remote region; whereas in truth they come no farther than their ſecret cabinet within, where they have been wholly taken up with the puppet, which is for that time appointed for their entertainment. The ſhame that ſuch dumps cauſe to wellbred people, when it carries them away from the company, where they ſhould bear a part

in the converſation, is a ſufficient argument, that it is a fault in the conduct of our underſtanding, not to have that power over it as to make uſe of it to thoſe purpoſes, and on thoſe occaſions wherein we have need of it's aſſiſtance. The mind ſhould be always free and ready to turn itſelf to the variety of objects that occur, and allow them as much conſideration as ſhall for that time be thought fit. To be ingroſſed ſo by one object, as not to be prevailed on to leave it for another that we judge fitter for our contemplation, is to make it of no uſe to us. Did this ſtate of mind remain always ſo, every one would, without ſcruple, give it the name of perfect madneſs; and whilſt it does laſt, at whatever intervals it returns, ſuch a rotation of thoughts about the

the ſame object no more carries us forwards towards the attainment of knowledge, than getting upon a mill horſe whilſt he jogs on in his circular track would carry a man a journey.

I grant ſomething muſt be allowed to legitimate paſſions, and to natural inclinations. Every man, beſides occaſional affections, has beloved ſtudies, and thoſe the mind will more cloſely ſtick to; but yet it is beſt that it ſhould be always at liberty, and under the free diſpoſal of the man, to act how, and upon what he directs. This we ſhould endeavour to obtain, unleſs we would be content with ſuch a flaw in our underſtandings, that ſometimes we ſhould be as it were without it; for it is very little better than

ſo in caſes where we cannot make uſe of it to thoſe purpoſes we would, and which ſtand in preſent need of it.

But before fit remedies can be thought on for this diſeaſe, we muſt know the ſeveral cauſes of it, and thereby regulate the cure, if we will hope to labour with ſucceſs.

One we have already inſtanced in, whereof all men that reflect have ſo general a knowledge, and ſo often an experience in themſelves, that no body doubts of it. A prevailing paſſion ſo pins down our thoughts to the object and concern of it, that a man paſſionately in love, cannot bring himſelf to think of his ordinary affairs, or a kind mother drooping under the loſs of a child, is

TRANSFERRING OF THOUGHTS.

is not able to bear a part as ſhe was wont in the diſcourſe of the company or converſation of her friends.

But though paſſion be the moſt obvious and general, yet it is not the only cauſe that binds up the underſtanding, and confines it for the time to one object, from which it will not be taken off.

Beſides this, we may often find that the underſtanding when it has a while employed itſelf upon a ſubject which either chance, or ſome ſlight accident, offered to it without the intereſt or recommendation of any paſſion, works itſelf into a warmth, and by degrees gets into a career, wherein, like a bowl down a hill, it increaſes it's motion by going,

and will not be ſtopped or diverted, though, when the heat is over, it ſees all this earneſt application was about a trifle not worth a thought, and all the pains employed about it, loſt labour.

There is a third ſort, if I miſtake not, yet lower than this; it is a ſort of childiſhneſs, if I may ſo ſay, of the underſtanding, wherein, during the fit, it plays with, and dandles ſome inſignificant puppet to no end, nor with any deſign at all, and yet cannot eaſily be got off from it. Thus ſome trivial ſentence, or a ſcrap of poetry will ſometimes get into men's heads, and make ſuch a chiming there, that there is no ſtilling of it; no peace to be obtained, nor attention to any thing elſe, but this impertinent gueſt will take

TRANSFERRING OF THOUGHTS.

take up the mind and poſſeſs the thoughts in ſpight of all endeavours to get rid of it. Whether every one hath experimented in themſelves this troubleſome intruſion of ſome friſking ideas which thus importune the underſtanding, and hinder it from being better employed, I know not. But perſons of very good parts, and thoſe more than one, I have heard ſpeak and complain of it themſelves. The reaſon I have to make this doubt, is from what I have known in a caſe ſomething of kin to this, though much odder, and that is of a ſort of viſions that ſome people have lying quiet but perfectly awake in the dark, or with their eyes ſhut. It is a great variety of faces, moſt commonly very odd ones, that appear to them in a train one after an-

other; ſo that having had juſt the ſight of the one, it immediately paſſes away to give place to another, that the ſame inſtant ſucceeds, and has as quick an exit as it's leader, and ſo they march on in a conſtant ſucceſſion; nor can any one of them by any endeavour be ſtopped or retained beyond the inſtant of it's appearance, but is thruſt out by it's follower, which will have it's turn. Concerning this fantaſtical phænomenon, I have talked with ſeveral people, whereof ſome have been perfectly acquainted with it, and others have been ſo wholly ſtrangers to it, that they could hardly be brought to conceive or believe it. I knew a lady of excellent parts, who had got paſt thirty without having ever had the leaſt notice of any ſuch thing; ſhe was ſo great a ſtranger

ſtranger to it, that when ſhe heard me and another talking of it, could ſcarce forbear thinking we bantered her; but ſometime after drinking a large doſe of dilute tea (as ſhe was ordered by a phyſician) going to bed, ſhe told us at next meeting, that ſhe had now experimented what our diſcourſe had much ado to perſuade her of. She had ſeen a great variety of faces in a long train, ſucceeding one another, as we had deſcribed, they were all ſtrangers and intruders, ſuch as ſhe had no acquaintance with before, nor ſought after then, and as they came of themſelves they went too; none of them ſtayed a moment, nor could be detained by all the endeavours ſhe could uſe, but went on in their ſolemn proceſſion, juſt appeared and then vaniſhed. This odd phæno-

menon

menon ſeems to have a mechanical cauſe, and to depend upon the matter and motion of the blood or animal ſpirits.

When the fancy is bound by paſſion, I know no way to ſet the mind free and at liberty to proſecute what thoughts the man would make choice of but to allay the preſent paſſion, or counterbalance it with another, which is an art to be got by ſtudy, and acquaintance with the paſſions.

Thoſe who find themſelves apt to be carried away with the ſpontaneous current of their own thoughts, not excited by any paſſion or intereſt, muſt be very wary and careful in all the inſtances of it to ſtop it, and never humour their minds in

being

being thus triflingly buſy. Men know the value of their corporal liberty, and therefore ſuffer not willingly fetters and chains to be put upon them. To have the mind captivated, is, for the time, certainly the greater evil of the two, and deſerves our utmoſt care and endeavours to preſerve the freedom of our better part. In this caſe our pains will not be loſt; ſtriving and ſtruggling will prevail, if we conſtantly, in all ſuch occaſions, make uſe of it. We muſt never indulge theſe trivial attentions of thought; as ſoon as we find the mind makes itſelf a buſineſs of nothing, we ſhould immediately diſturb and check it, introduce new and more ſerious conſiderations, and not leave till we have beaten it off from the purſuit it was upon.

This,

TRANSFERRING OF THOUGHTS.

This, at firſt, if we have let the contrary practice grow to an habit, will perhaps be difficult; but conſtant endeavours will by degrees prevail, and at laſt make it eaſy. And when a man is pretty well advanced, and can command his mind off at pleaſure from incidental and undeſigned purſuits, it may not be amiſs for him to go on farther, and make attempts upon meditations of greater moment, that at the laſt he may have a full power over his own mind, and be ſo fully maſter of his own thoughts, as to be able to transfer them from one ſubject to another, with the ſame eaſe that he can lay by any thing he has in hand, and take ſomething elſe that he has a mind to in the room of it. This liberty of mind is of great uſe both in buſineſs and ſtudy, and he

he that has got it will have no ſmall advantage of eaſe and diſpatch in all that is the choſen and uſeful employment of his underſtanding.

The third and laſt way which I mentioned the mind to be ſometimes taken up with, I mean the chiming of ſome particular words or ſentence in the memory, and, as it were, making a noiſe in the head, and the like, ſeldom happens but when the mind is lazy or very looſely and negligently employed. It were better indeed be without ſuch impertinent and uſeleſs repetitions. Any obvious idea when it is roving cauſeleſſly at a venture, being of more uſe and apter to ſuggeſt ſomething worth conſideration, than the inſignificant buz of purely empty ſounds. But ſince the rouſing of the

the mind, and ſetting the underſtanding on work with ſome degrees of vigor, does for the moſt part preſently ſet it free from theſe idle companions; it may not be amiſs whenever we find ourſelves troubled with them, to make uſe of ſo profitable a remedy that is always at hand.

AN ABSTRACT OF MR. LOCKE'S ESSAY ON HUMAN UNDERSTANDING.

AN

ABSTRACT

OF

Mr. LOCKE's ESSAY, &c.

MEN come into the world without any idea or principle, either ſpeculative or practical; but all our ideas ariſe either from Senſation, or Reflection.

An idea is whatſoever is perceived, or thought on; and is either,

Firſt, Simple; or,

Secondly, Complex.

First: A SIMPLE IDEA is one uniform appearance, representation, or perception of the mind, without alteration or variety: — Here three things are to be considered:

1st. The manner of their conveyance, or being in the mind.

2dly. The objects from without, that affect the mind.

3dly. The mind itself.

1st. The manner of their conveyance into the mind: Some simple ideas come in by sensation only; some by reflection only; some both by sensation and reflection.

1. By sensation only; and these either by the sensation of one sense, as light and colour by the eye, sound by the ear, taste by the palate, odours by

by the noſe, the ideas of ſolidity and other tangible qualities, as heat, cold, &c. by the touch; or of ſeveral ſenſes, as the ideas of motion and reſt, ſpace, extenſion, and figure.

2. By reflection only; as perception or thinking, volition or willing, and their ſeveral modes.

3. Simple ideas, both by ſenſation and reflection; and theſe are either pain, pleaſure, exiſtence, or unity.

2dly. Objects from without, that affect the mind: and they are,

1. Primary qualities of bodies; ſuch as motion, reſt, figure, and texture, which are in the bodies themſelves, whether perceived or not.

2. The ſeveral diſpoſitions in bodies to produce ſeveral ſenſations in us; whence colours, ſounds, taſtes, &c. which are indeed only ſenſations produced in the animal by the operation, or action of ſuch primary qualities.

3dly. The mind itſelf: and therein are three faculties;

1. Of Perception.

2. Of Retention; which is twofold:

(1.) Either the keeping the ſame ideas actually in view, which we call Contemplation.

(2.) Or reviving them when they are gone, which we call Memory.

3. Of Diſcernment; which contains a threefold power:

(1.) Of

(1.) Of comparing the ſeveral ideas; and on ſuch compariſon, obſerving their reſemblances, which is called Wit; or obſerving their minuteſt differences, which is called Judgment.

(2.) The power of compounding our ideas; which is, 1. By carrying ſeveral ſimple ideas into the ſame repreſentation: or, 2. By the repetition of the ſame idea, which is called Enlarging.

(3.) The power of abſtracting; which is the ſeparating any idea from the circumſtances of real exiſtence, as from time, place, and other concomitant ideas.

Secondly: COMPLEX IDEAS conſiſt of ſeveral ſimple ideas united in the ſame repreſentation, appearance, or perception: and they either come

into the mind thus united from the operation of things without us; as the idea of ſolidity and figure, is cauſed by the ſame ball; therefore in the complex idea of the ball, we conceive ſuch ideas as are co-exiſtent and concomitant: or elſe when ſuch ſimple ideas are united by the mind; as in the idea of law, obligation, &c.

Complex ideas are of three ſorts:

I. Of Modes.

II. Subſtances.

III. Relations.

I. Of Modes; which are again twofold:

1ſt. Simple.

2dly. Mixt.

1ſt. Sim-

1ſt. Simple modes are the ſeveral different manners, under which any ſimple idea may appear to the mind: and theſe either come in,

1. By ſenſation only, as the ſeveral modes of ſpace, a yard, a furlong, a mile; or thoſe ſet out by viſible marks and boundaries, as the ſeveral places of bodies; or the ſeveral modes of numbers, as a ſcore, a groce, a dozen.

2. By reflection only, as the ſeveral modes of thinking: which are either,

(1.) Without pain or pleaſure; or,

(2.) With it.

(1.) Without pain or pleaſure: and whoever obſerves his mind, will

find a perpetual revolution of ideas while he is awake. The ſtopping any of them, and conſidering it on all ſides, we call Attention; the letting the mind run adrift, in the conſtant rotation of ideas and objects before us, is called Remiſſion: and there are in the mind conſtant degrees of attention and remiſſion, according to the different degrees of conſideration the mind employs concerning the objects before it.

(2.) The modes of thinking with pleaſure and pain; and theſe are called the Paſſions. The pleaſure we find in any idea preſent and abſent, we call Love; the pleaſure we find in the thought of any future enjoyment, that we think probable to affect us, we call Hope; the pleaſure we find upon the near approach of any pleaſure, of whoſe poſſeſſion we

we think ourſelves aſſured, we call Joy. Whatſoever does, or is like to affect us with pleaſure, we call Good; the thought of pain, which any thing preſent or abſent is apt to produce in us, we call Hatred or Averſion; the uneaſineſs we find upon the abſence of any thing, that might affect us with pleaſure, we call Deſire; the uneaſineſs of mind upon a good loſt, which we might have longer enjoyed, we call Sorrow; the uneaſineſs of mind upon the thought of future pain, we call Fear; the uneaſineſs of mind on the thought of a good we deſire, obtained by another, we call Envy; if ſuch good relates to the enjoyment of men and women, it is called Jealouſy; a ſudden uneaſineſs of mind on a ſudden pain produced in us by another, together with a certain purpoſe to produce pain in return,

is

is called Anger; if conſtant, and the purpoſe of returning pain be continuing, it is called Malice; the uneaſineſs, that arrives from the thought of any unattainable good, we call Deſpair; whatſoever cauſes pain, or is likely to produce it in us, is called Bad or Evil.

3. Simple modes coming in by ſenſation and reflection: hence we have the ideas,

(1.) Of power.
(2.) Of time.
(3.) Of eternity.
(4.) Of infinity.

(1.) The idea of power: which is formed from the ability, that we find in ourſelves of ſtopping any idea in the revolution of any ideas within

within us; or the power, by a thought, of moving our bodies, which is called the Will; the power of acting, or not acting, according to ſuch determination of a man's own thought, is called Liberty: ſo that liberty is the abſence of all impediments that hinder acting or not acting, according to the preference of his own will. That which moves the will, is Uneaſineſs; but ſuch motions may be controuled by the power we have within us of omitting any action, till we have conſidered it's conſequences, and find them either good or evil. That wherein conſiſts Innocence, is the acting or not acting, according as the judgment, upon a due and impartial conſideration, doth find ſuch act or omiſſion to be good or evil: and the not ſuſpending ſuch action till

till we have conſidered it as we might do, is called Guilt.

The idea of power from ſenſation is, when there is any alteration in our ſimple ideas, by the action of bodies one upon another; that body, which makes the alteration, we conceive to have the power of making it, and the other a power of receiving it.

(2.) Of time; which is a certain revolution of ideas in our own mind, meaſured by the motion of things without, and chiefly by the motion of the heavenly bodies, as being more conſtant and equal.

(3.) Eternity is the repetition of ſuch ſeveral revolutions, together with a reflection on our own power to add on, without coming to an end.

(4.) In-

(4.) Infinity is the ſame repetition of our ideas of ſpace or number, with a reflection on our power to add on, without coming to an end; and ſuch repetition of our idea of ſpace, is by a peculiar name called Immenſity.

2dly. Of mixt modes; which are ſeveral diſtinct ſimple ideas united into the ſame combination by the mind, and are therefore called Notions, as a lie, obligation, law, &c. And theſe the mind unites for greater diſpatch in the buſineſs of civil life; and therefore only conſiders the poſſible union of ſuch ſimple ideas, whether it has ever ſeen them ſo actually united or not.

II. The ideas of ſubſtances: and theſe are either,

1ſt. Se-

1ſt. Separate; or,

2dly. Collective.

1ſt. Separate ſubſtances; and that is the union or co-exiſtence of ſeveral ſimple ideas in one and the ſame place, which is all the notion we have of ſubſtance: thus the union of the idea of extenſion, ſolidity, figure, and a diſpoſition to produce the idea of colour in us, is what we call Body. The union or co-exiſtence of the ideas of perception, reflecting, chuſing, and ſelf-motion, is what we call Spirit: but what are the *ſubſtrata* of theſe properties and powers, are to us equally unintelligible.

2dly. The collective ideas of ſubſtances; which is when ſeveral ſubſtances are collected into the ſame repre-

repreſentation, as an army, triumph, proceſſion, &c.

III. Of relations; which is the comparing of ſeveral ideas, whether ſimple or complex, or of modes and ſubſtances, one with the other; and conſidering the denominations that may ariſe from ſuch compariſon: for ſince the order of nature is ſuch, that there is a dependence of things one upon the other; ſo do they convey to the mind an idea of ſuch dependence: and whatever notion we have from ſuch dependence of things one on the other, or of the connection or repugnance of ideas one to the other, gives us the idea of relation.

All words that refer to a certain ſtandard, either of duration or ſize, are relative terms, as old, young, ſtrong, weak, &c. which relate to the

the uſual duration or conſtitution of each living creature, as the ſtandard to which we compare the thing mentioned. The moſt noted relations are theſe:

1ſt. Of cauſe and effect.

2dly. Identity and diverſity.

3dly. Moral relations.

4thly. The relations of our ideas themſelves.

1ſt. Of cauſe and effect. That which produces any ſimple idea in us, we call Cauſe; and that which is produced, we call the Effect.

2dly. Of identity and diverſity. And here the identity of bodies ariſes from the ſameneſs of the parts, which produce the ſame ſimple ideas in the beholder. The identity of vege-

vegetables arifes from the fame organization of the parts, whether exactly confifting of the fame matter or not. The identity of animals confifts in the fame organization of parts, and the fame conftant and continued common life; and that life confifts in the fame faculties and power of acting. And the identity of perfon, mind, or fpirit confifts, as far as we can apprehend it, in having the fame confciouſneſs of ideas, powers, and actions.

3dly. Of moral relations. The notion of which arifes from our comparing our actions to a rule; and that is threefold:

1. The laws of the country.

2. The laws of opinion, or reputation.

3. The law of God; which is twofold:

(1.) The law of nature; which is the rule which reaſon diſcovers to us touching the fitneſs, or conveniency of any action.

(2.) The law revealed.

4thly. The relations of our ideas themſelves: and they relate either,

1. To the perception of our own minds; or,

2. To the things they are ſuppoſed to repreſent.

3. Of the caſual relations of ſuch ideas one to another, obtained in the mind.

1. Of ideas relating to the perception of our own mind: and they are ſaid to be either,

(1.) Clear;

(1.) Clear; or,

(2.) Confuſed.

(1.) A clear idea is that, wherein the mind perceives a difference from all others.

(2.) A confuſed idea is ſuch, as is not ſufficiently diſtinguiſhable from other ideas different from it.

2. Of ideas relating to the things they are ſuppoſed to repreſent; and they are,

(1.) Real, or fantaſtical.

(2.) Adequate, and inadequate.

(3.) True, and falſe.

(1.) Of real, or fantaſtical ideas. All our ſimple ideas are real, being produced by the operation of things in us. Mixt modes are all real,

being a combination made by the mind; if the co-exiſtence of ſuch ideas be only poſſible. The ideas of ſubſtances are real, if we have ever found ſuch ſimple ideas come into our mind ſo united; if otherwiſe, they are fantaſtical.

(2.) Of adequate, and inadequate ideas. Adequate ideas are ſuch, as perfectly repreſent thoſe archetypes or patterns to which the mind refers. Inadequate ideas are a partial and incompleat repreſentation of ſuch patterns. All ſimple ideas are adequate. All mixt modes are adequate; becauſe they refer to no archetypes or patterns, but only to a certain combination made by the mind: but ſo far they may be inadequate, as they refer to a ſuppoſed combination, made in the minds of other perſons, ſignified under the

ſame

ſame name. All ideas of ſubſtances are inadequate; becauſe they have reference to patterns, whoſe real eſſence we know not.

(3.) Of true, and falſe ideas. Ideas are ſaid to be true, that are conformable to ſome real exiſtence; and falſe, that have no conformity to ſuch exiſtence any where found: and ſo our ideas are ſaid to be true, when they are conformable to the ideas ſignified under the ſame name by others.

3. Of the caſual relations of ſuch ideas one to another, obtained in the mind. And this is by cuſtom. As the putting together of ideas, according to their apparent or probable agreement or diſagreement, is reaſoning; and the connecting repugnant ideas, is madneſs: ſo the

connecting independent ideas by cuſtom, which have no viſible connection in themſelves, is an infirmity in the mind that wants a name; as where a man has the imagination of an infallible man by education and cuſtom; theſe and ſuch like falſe aſſociations of ideas by habit and cuſtom, make a perpetual connection between them in the mind; ſo that they perpetually appear together in the ſame gang, and as much affect our reaſonings, opinions and judgment, as if they were naturally united.

Of LANGUAGE.

Men were not created to live ſolitarily, and independently on each other, as ſeveral kinds of brutes do; but

but for mutual intercourſe and ſociety: and therefore it was not enough for nature to furniſh the mind with objects from without, which are inviſible in the mind; but it was alſo neceſſary that we ſhould be furniſhed with a ready method of communicating ſuch ideas: and this was by the ſenſe of hearing; whereby we are capable of receiving ſeveral ſounds, and of connecting them with the ideas in the mind; and farther are by the tongue capable of making ſuch ſounds, as ſigns of ſuch ideas: ſo that language is nothing elſe, but the connection of ſounds to ideas, in order to make the ideas in the mind of one man underſtood by another. But becauſe ſeveral objects excite in us the ſame ideas, therefore names in language are made general, to excite in the hearer ſuch an idea as is

framed in the mind of the ſpeaker, from whatſoever particular object ſuch idea was formed in the mind of the ſpeaker; for in connecting the ſound of the idea, the mind hath no farther conſideration than of the idea itſelf, as it ſtands in the mind of the ſpeaker, by whatſoever thing from without it was formed in him: and were it otherwiſe, it were impoſſible to regiſter the particularity of things, and accommodate names to them; ſince ſcarce any man hath the ſame idea from the ſame particular object, which another has. Beſides that, if names were as particular as things, ſuch ſigns would become altogether uſeleſs; ſince the particularity of things are infinite, and therefore would incumber the mind with infinite names, which could not be remembered, nor would be of

uſe

uſe for intercourſe and communication.

In language four things are conſiderable.

1ſt. The expreſſion of independent ideas.

2dly. The expreſſion of the connection and repugnancy of ideas.

3dly. The imperfection of language.

4thly. The abuſe of it.

1ſt. Of the expreſſion of independent ideas; and that is threefold:

1. Of ſimple ideas.

2. The names of mixt modes.

3. The names of ſubſtances.

1. Of

1. Of ſimple ideas: which cannot be defined or explained *per notiora*; ſince definition is reſolving the thing to be defined into it's moſt ſimple ideas: but complex ideas may be defined, becauſe they may be reſolved into their ſimple ideas; and ſimple modes may be defined, being the manner in which theſe ſimple ideas are combined; and therefore the mind may define ſuch preciſe combination.

2. The names of mixt modes: and they being arbitrarily made in the mind, for the ends of civil life, and names added to them for diſpatch in converſation, we may define the particular combination of which they conſiſt; and being made without any relation to archetypes without, it is the name that holds together the combination.

3. The

3. The names of ſubſtances: and here the name ſtands for the preciſe collection of ſimple ideas in the mind of the ſpeaker, which is the nominal eſſence; though it has a relation to ſomething without, capable of raiſing that preciſe collection of ideas in the mind, which are the patterns or archetypes of ſuch nominal eſſence; but the real eſſence, which is the internal conſtitution of parts, on which ſuch properties depend, is perfectly unknown, and therefore not expreſt in the name.

2dly. The expreſſion of the connection and repugnancy of ideas; and this is three ways:

1. By inventing words of affirmation and negation, to be ſigns of the

the expreſſion of ſuch connection and repugnancy.

2. By the invention of abſtract and concrete terms.

The abſtract term or ſubſtantive, is the ſign of an idea independent on any other.

The concrete term or adjective, is the expreſſion of the idea, with the relation of it's co-exiſtence with others.

3. By the invention of particles; which are ſigns that connect the train of ideas one to another, that they may be received into the mind of the hearer in the ſame order, in which they ſtand in the mind of the ſpeaker.

3dly. Of the imperfection of language: and here,

1. Of ſimple ideas: and there the connection is made between the name and the idea, by ſhewing the object which exhibits it; and therefore here we are not very liable to miſtake, ſince theſe ideas are regularly produced from things without; and therefore the ſame ideas are formed in all men, having the ſame organs: and there is no difference between the archetypes and the idea, the objects without regularly creating that idea in the animal, to which the name is annexed.

2. The names of mixt modes are often ſubject to perplexity and confuſion, when there is great variety in the ſame combination; ſo that the ſimple ideas, of which the name con-

conſiſts, cannot be remembered, and becauſe we cannot go to archetypes to correct their miſtakes about them.

3. The names of ſubſtances are liable to great imperfections, becauſe we know not the real conſtitution of things; and therefore cannot underſtand what preciſe combination of ſimple ideas is coexiſtent, which have all the ſame right to be made a part of the nominal eſſence.

4thly. The abuſe of words.

1. By uſing words without ideas.

2. By varying the combination of ideas, and keeping the ſame name; by referring words to the reality of things,

things, and not to our own ideas; by putting together ſuch ideas in our minds as united in things without us, as have not come in coexiſtent.

The remedy of theſe abuſes is, by defining the preciſe combination of ideas to which the name is annexed, and uſing the words invariably for the ſame combination of ideas.

Having thus conſidered our ideas, which are the materials of our knowledge; and our language, which is the manner of our conveying them to others: the laſt thing is to conſider, how our ideas are put together, and compared one with the other: and herein,

I. Of

I. Of Knowledge.

II. Opinion.

III. Reaſon.

IV. Error.

V. Faith. And

VI. Enthuſiaſm.

I. Of knowledge. Knowledge is the comparing of two or more ideas, and viewing their connection and agreement, repugnancy or diſagreement; and it is twofold:

1ſt. Either intuitive; or,

2dly. Demonſtrative.

1ſt. Intuitive knowledge is where the agreement or repugnancy of ſeveral ideas appears upon view.

2dly. De-

2dly. Demonſtrative knowledge is where the agreement or repugnancy of ideas doth not appear upon view, but by compariſon with ſome intermediate idea. Thus we demonſtrate that all the angles of a triangle are equal to two right angles, by ſetting the triangle between parallels, and comparing the angles at the upper point of interſection with the angles of the triangle, and two right angles.

The agreement or diſagreement of our ideas, is of four ſorts.

1. Of identity, or diverſity.
2. Relation.
3. Co-exiſtence.
4. Real exiſtence.

1. Identity, or diverſity, is known

by intuition, as we know by view that one colour or magnitude is not another.

2. The ideas of relation are known from view, or demonſtration, as in the inſtance before mentioned.

3. Co-exiſtence, or non-co-exiſtence, is ſeldom known from the general compariſon of our ideas; for ſince we do not know the real ſubſtances of things, we do not know what ideas are compatible with each other: and therefore here we have no knowledge from the general conſideration of our ideas, but from trial, obſervation, and experience only.

4. Real exiſtence; and here we have knowledge,

(1.) Of

(1.) Of ourſelves, by intuition or view.

(2.) Of the being of a God, by demonſtration, as thus: The abſence of being cannot produce being; *ergo*, ſomething eternal. Abſence of thought cannot produce thought: we think; *ergo*, there is thought without beginning. Eternal thought we call God. We begin to think; *ergo*, not from matter, where there is no thought; *ergo*, the mind created by eternal thought. And whatever could produce a being to ſee and feel, muſt be preſumed, as a leſs effect of his power, to produce the things felt and viſible.

(3.) We have the knowledge of the being of all other things by ſenſation.

Having thus conſidered the ob-

jects of our knowledge, the next things to be considered are,

1ſt. The extent.

2dly. The reality. And

3dly. The univerſality of our knowledge.

1ſt. The extent of our knowledge; and that is,

1. No farther than we have ideas. And,

2. No farther than we can find their agreement or diſagreement, by the comparing them with intermediate ideas, by which their agreement or diſagreement may appear.

2dly. The reality of our knowledge. And though our knowledge be only of ideas, yet theſe ideas having

ing relation to objects without us, it is in some measure real; for all simple modes being the product of the operation of things themselves upon our own minds, all our knowledge about them must be real knowledge. Mixt modes are intended to have relation to ideas in our own minds; and therefore our knowledge concerning them has no other reality, but upon the supposition of the existence of such modes, conformable to our ideas. Our knowledge of substances are so far real, as we put together ideas coexistent in the same place, and that have come into our minds thus united: but as far as we refer them to the real internal constitution of things, so far our ideas of substances are not real; because their constitutions are unknown to us. Truth therefore in the mind is the inward

perception of the agreement or diſagreement of our ideas, together with a like perception of the paſt, preſent, or future exiſtence of the things themſelves ſo conjoined or ſeparated in nature. In this definition of truth is comprehended a twofold certainty: a certainty of knowledge, which is the perception of the agreement or diſagreement of our own ideas: a certainty of exiſtence, which is a perception of the things themſelves exiſting, conjoined or ſeparate, as we have put them together: truth in words is the conjoining the ſigns of the ideas together, as the ideas themſelves lie in the mind of the ſpeaker.

3dly. Of the univerſality of our knowledge. In ſimple ideas, where the real and nominal eſſence is the ſame, there all our knowledge is general

ral and univerſal; becauſe there is no difference in theſe ideas, from whatſoever objects they are formed. In mixt modes our knowledge is general and univerſal: for theſe being combinations made by the mind, not with relation to an actual, but only a poſſible exiſtence, all our knowledge concerning them is univerſal; ſince the ſame agreement or diſagreement muſt happen whereever they are found.

Our knowledge of ſubſtances, as far as relates to their real eſſence, is all particular; ſince it goes no farther than our trial and obſervation, which is only particular, touching the bodies before us; but not knowing the real and internal conſtitution of things, we cannot rank them into any general ſorts, or claſſes, under general names; and therefore

we are not capable of any univerſal knowledge about them. For to make univerſal propoſitions, it is neceſſary that we ſhould know the abſolute ſet bounds of each particular thing that we comprehend under that general name; and that we cannot know, without looking into the internal conſtitution of things; which in this ſtate and condition we cannot do: but touching the nominal eſſence of ſubſtances, we may make univerſal propoſitions; but theſe are only identical and trifling, and ſignify no more than the ſeveral ideas we comprehend under that name: as when we ſay, gold is yellow, fuſible, fixed, &c. that the whole is equal to all it's parts taken together; that whatſoever is, is; and that it is impoſſible for the ſame thing to be, and not to be. Theſe three laſt, however they have got

the

the reputation of maxims, are nothing elſe but identical propoſitions, including what we comprehend under the name of whole or being; as the other comprehends what we include in the name or term of gold; by conſequence, ſuch maxims are of little uſe to the invention of knowledge, but may ſerve for conviction of ſuch as affectedly wrangle or oppoſe.

II. Opinion is the perception of the probable agreement or diſagreement of our ideas. Probability is where the connection or agreement, or the repugnancy or diſagreement, is not found from the intuition or view of the ideas themſelves, or from the intuition of any idea to which they are compared, which by ſuch intermediate view ſhews ſuch connection or repugnancy; but ſuch agree-

agreement or diſagreement is found by obſervation and experience only, which could not be found from any view or juxta-poſition of the ideas themſelves in our minds. Thus we know that our meat nouriſhes, not from any general ideas of the internal conſtitution of meat, and of the animal, but becauſe we have found it to be true from experience only. But here we muſt conſider,

1ſt. The ſeveral criterions or marks of probability, ariſing from our own experience.

2dly. From the experience of others.

1ſt. The ſeveral criterions or marks of probability, ariſing from our own experience.

1. When

1. When ſuch experience is general and univerſal, we no more doubt of ſuch truths than of thoſe that appear from the intuition of the ideas themſelves; becauſe ſuch experience furniſhes the mind with a conſtant perception of the agreement or diſagreement of ſuch ideas, as if it had riſen from the intuition of the ideas themſelves.

2. If ſuch experience hath failed in ſingle inſtances, then the agreement or diſagreement of ſuch ideas is judged from the number of ſuch inſtances, one way or the other, that have fallen under our experience; for then we eſteem ſuch ideas to agree or diſagree one with the other, as we have generally found to do ſo: but every inſtance to the contrary, is the occaſion of ſome doubt to the mind.

Hence

Hence it is, that what may ſeem probable to one man, or in ſome places, ſeems improbable in others, according to the difference of their obſervation and experience: as that water ſhould be hard enough in winter to bear carts and horſes, may ſeem probable in *England* and *Holland*; but would not ſeem probable under the line, where they were never uſed to ſuch obſervations.

All our knowledge touching ſubſtances goes no farther than probability; becauſe we have no ideas of the internal conſtitution of ſuch ſubſtances to compare with each other; and therefore our reaſonings, touching the co-exiſtence or non-co-exiſtence of ſuch ideas, is founded,

(1.) Upon the trial and experience of ſuch their co-exiſtence.

(2.) Up-

(2.) Upon analogy; whereby, upon the obſervation of the co-exiſtence of like ideas, we judge that where ſuch like ideas are found, there will follow the ſame ideas, which at other times we have found conſequent upon them.

2dly. The ſeveral criterions or marks of probability, ariſing from the experience of others.

As we judge by our own experience, ſo alſo we judge by the ſight, obſervation, and experience of others; and this is called Teſtimony. And in this, eight things are conſiderable.

1. The number.

2. The integrity.

3. The ſkill of the witneſſes.

4. Their

4. Their true design and intent.

5. The consistency of the parts and circumstances of the relation.

6. Contrary testimonies.

7. The consistency of what is attested with our own observation and experience. And,

8. The distance of such relaters from the sight and view of the thing which they attest; which is so far weakened as they themselves take it from others, and the thing related doth not fall under their own view and experience.

These are the criterions of probability, touching facts depending on mere human agents: but on things depending on the power of God, the seventh criterion of probability is not to be taken into our weigh-

weighing and conſidering ſuch facts; becauſe our obſervation and experience extends no farther than the ordinary courſe of nature; and not to what God almighty can do in an extraordinary manner, for the confirmation of doctrines of great importance, and which he hath thought fit to reveal.

III. Of reaſon; which is that faculty in men, whereby we diſcover the connection or repugnancy of our ideas in themſelves, or their probable connection or repugnancy one to the other.

IV. Error ariſes from the caſual aſſociation of ideas, by habit or cuſtom, or by education from our minority, otherwiſe than ſuch ideas are conjoined or ſeparated in nature; or by depending blindly on the

the authority of others, without perceiving the connection of such our ideas, or the probable connection of them; and yet conjoining and separating them according to such authority, where there is no connection or repugnance in the ideas themselves; forming propositions in things of which we have no idea, by comparison of them with the ideas we have; concluding without intermediate proofs, or without sufficient consideration of them.

V. Of faith. Faith is the belief of any truth coming from God, the author of truth: and this is either,

1st. By original revelation. Or,

2dly. Traditional.

1st. Ori-

1ſt. Original revelation is the immediate delivery of truth from God almighty into the minds of men; which is done in a manner to us unconceivable: for how God almighty may deliver himſelf in ways different from the common conveyance of knowledge, by ſenſation or reflection, is not by us to be underſtood, we having no other ways of knowledge; but that it may be done, is extremely probable, from the conſideration of his infinite power.

2dly. Traditional revelation is the belief of a truth coming from God, without immediate revelation to ourſelves, upon the teſtimony of facts, which muſt of neceſſity proceed from the power of God.

1. Such things revealed cannot

be contrary to reaſon; becauſe it were abſurd to ſuppoſe that God almighty ſhould dictate one thing in the ordinary courſe of nature, and another by ſuch extraordinary revelation: nor could ſuch a revelation be believed; ſince the truth of it's coming from God could not be more evident, than the connection or repugnance of the ideas themſelves are in their own nature.

2. Such revelation is of things above reaſon; that is, of ſuch things of which reaſon is altogether ſilent: for ſuch revelation were to no purpoſe, if it taught nothing at all farther than what might be found by the uſe of our natural faculties; though it may inforce ſuch things as are found to be truths by our natural faculties, from conſiderations which could never be found out

out by them; and as far as it doth ſo, it is above and beyond what reaſon teaches.

VI. Enthuſiaſm is an opinion, that our own fancies and imaginations are revelations from God. And here,

1ſt. If ſuch perſon cannot, by extraordinary effects coming from God, give credit to ſuch pretended revelations, all men are left at liberty whether they will believe him or not.

2dly. If ſuch revelation be contrary to reaſon, or contrary to former revelations, atteſted by facts coming from God, ſuch revelation cannot be from God; becauſe God cannot be the author of contradictions.

3dly. If ſuch pretended revelation contain nothing more than what reaſon teaches, or what has been already taught by a former revelation, atteſted by the divine power; then ſuch revelation cannot be from God, unleſs it be atteſted by facts flowing from the ſame power: ſince we cannot ſuppoſe that to be done by God in a worſe and leſs evident manner, which hath been done in a better and more apparent manner already.